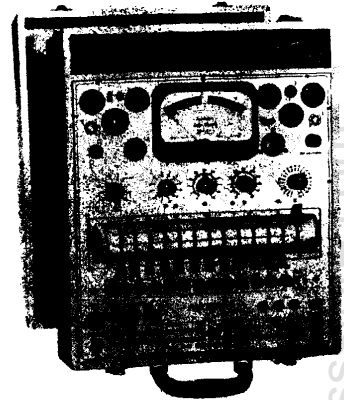


FORM — MRC (78)

PRICE 75¢

## SUPPLEMENTARY TUBE DATA

FOR USE WITH  
PRECISION TUBE TESTERS



MODELS  
10-12, 10-15, 10-20,  
10-22, 10-54

This Supplementary Chart provides settings for tubes which fall into one or more of the following classifications:

1. Infrequently encountered types;
2. Obsolete types;
3. Tubes manufactured for special or limited applications;
4. Foreign tubes.

**PRECISION**

**Apparatus, Inc.**

80-00 COOPER AVE. BLDG #3  
GLENDALE 27, N. Y.

# MEMORANDA

## MODEL MRC

1

Tube	Section	A	B	C	D	E	W	X	Y	Z	Cont. Fil.
Lever											
OA4		7	1	0	10	1	■		5	■	
(OA4—May show short on 2-7)											
OY4		1	2	0	4	18	■		5	■	
(OY4—Must show short on 7-8)											
(OY4—May show short on 3)											
OZ3	plate-1	7	3	0	4	18	■		3	■	
"	plate-2	7	3	0	4	18	■		2	■	
(OZ3—Must show short on 1-8)											
01A		1	1	19	20	6	■		2	3	1-4
1		2	1	0	3	7	■		2	■	1-4
1A3		2	1	0	27	2	■	2-5	5	■	1-7
(1A3—Must show short on 2-5-6)											
(1A3—Plate short test—depress 2-6 together)											
1A4		1	1	28	25	3	■	3	2	11	1-4
1A5		1	2	33	17	2	■	4	3	5	2-7
1A6	amp.	4	1	26	33	3	■	5	3	11	1-6
"	osc.	1	1	33	47	3	■		3	4	
1A7	amp.	4	2	25	29	2	■	4	3	11	2-7
"	osc.	2	2	14	36	2	■		4-6	5	
1AB5		1	1	35	13	2	■	7	3	2	1-7-8
1AB6	amp.	5	7	27	40	2	■	6	2	3-4	1-7
"	osc.	5	7	13	19	2	■		3	4	
1AC5		5	4	7	23	2	■	6	7	2	4-5
1AC6	amp.	1	7	50	31	2	■	6	2	3-4	1-7
"	osc.	1	7	36	10	2	■	5	3	4	
1AD4		5	5	11	15	2	■	2	1	4	3-5
1AD5		5	4	7	36	2	■	8	7	2	4-5
1AE4		1	7	10	44	2	■	3	2	6	1-5-7
1AF4		5	7	9	28	2	■	3	2	6	1-5-7
1AF5	pent.	5	1	11	33	2	■	4	5	6	1-7
"	diode	3	1	0	45	2	■		3		
(1AF5—Diode section OK above 14 on meter scale)											
1AG4		5	3	4	17	2	■	2	1	4	3-5
1AG5	pent.	5	4	7	44	2	■	2	1	5	4-6
"	diode	3	4	0	25	2	■		3		
1AH4		5	3	5	38	2	■	2	1	4	3-5
1AH5	pent.	4	7	17	41	2	■	4	5	6	1-7
"	diode	3	7	0	28	2	■		3		
1AJ4		5	7	6	37	2	■	3	2	6	1-5-7
1AJ5	pent.	5	4	8	40	2	■	2	1	5	4-6
"	diode	3	4	0	24	2	■		3		
1AK4		3	3	10	32	2	■	2	1	4	3-5
1AK5	pent.	3	4	10	45	2	■	2	1	5	4-6
"	diode-1	3	4	0	29	2	■		3		
1AN5		5	7	16	33	2	■	3	2	6	1-5-7
1B4		1	1	23	35	3	■	3	2	11	1-4
1B5	triode	1	1	11	38	3	■		2	5	1-6
"	diode-1	3	1	0	27	3	■		3		
"	diode-2	3	1	0	27	3	■		4		
1B8	diode	3	2	0	27	2	■		8		2-7
"	triode	2	2	25	46	2	■		5	11	
"	pent	1	2	33	15	2	■	4	3	5	
1C3		5	1	13	22	2	■	2	5	4	1-7
(1C3—Must show short on 2-6)											
(1C3—Plate short test—Depress 2-6 together)											
1C5		1	2	27	13	2	■	4	3	5	2-7

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.
							W	X	Y	Z	
1C6	amp.	4	1	20	29	3	■	5	2	11	■ 1-5
"	osc.	1	1	34	45	3	■	5	3	4	■
1C7	amp.	4	2	20	29	3	■	4	3	11	■ 2-7
"	osc.	1	2	34	45	3	■	5	5	5	■
1C8	amp.	5	5	13	43	2	■	1	7	5	■ 4-5
"	osc.	5	5	27	14	2	■	1	7	2	■
(1C8—Must show short on 1)											
1C21		1	1	0	11	18	■		5		■
(1C21—May show short on 2-7)											
1D3		5	4	11	10	2	■		8	1	■ 4-5
1D5		1	2	21	35	3	■	4	3	11	■ 2-7
1D7	amp.	4	2	30	36	3	■	4	3	11	■ 2-7
"	osc.	1	2	36	45	3	■	6	5		■
1D8	diode	3	2	0	27	2	■		8		■ 2-7
"	triode	1	2	15	40	2	■		5	11	■
1DN5	pent.	4	1	12	30	2	■	4	3	5	■
"	diode	3	1	0	39	2	■	3	2	6	■ 1-7
1E4		1	2	13	24	2	■		3	5	■ 2-7
1E5		1	2	23	35	3	■	4	3	11	■ 2-7
1E7	pent-1	1	2	35	11	3	■	8	3	4	■ 2-7
"	pent-2	1	2	35	11	3	■	8	5	5	■
1E8	amp.	5	4	5	38	2	■	7	5	8	■ 4-5
"	osc.	5	4	12	19	2	■		7	2	■
1F4		1	1	33	14	3	■	4	2	3	■ 1-5
1F5		1	2	23	14	3	■	4	3	5	■ 2-7
1F5	diode-1	3	1	0	27	3	■		4		■ 1-6
"	diode-2	3	1	0	27	3	■		5		■
"	pent.	1	1	31	30	3	■	3	2	11	■
1F7	diode-1	3	2	0	27	3	■		4		■ 2-7
"	diode-2	3	2	0	27	3	■		5		■
"	pent.	1	2	31	30	3	■	5	3	11	■
1G4		2	2	23	29	2	■		3	5	■ 2-7
1G5		1	2	28	14	3	■	4	3	5	■ 2-7
1G6	triode-1	1	2	31	16	2	■	3	3	4	■ 2-7
"	triode-2	1	2	31	15	2	■		5	5	■
1H2	Caution:—Levers 2-8 must be thrown to "W" BEFORE inserting tube.										
"		2	5	0	49	2	■	2-8		11	■
(1H2—Tube OK above 14 on meter scale)											
(1H2—Must show short on 1-4-5-6-9)											
1H4		1	2	21	18	3	■		3	5	■ 2-7
1H5	diode	3	2	0	27	2	■		5		■ 2-7
"	triode	5	2	12	46	2	■		3	11	■
1H5	triode	1	2	9	40	3	■		3	6	■ 2-7
"	diode-1	3	2	0	30	3	■		4		■
"	diode-2	3	2	0	30	3	■		5		■
1J5		1	2	37	11	3	■	4	3	5	■ 2-7
1J6	triode-1	1	2	20	23	3	■		3	4	■ 2-7
"	triode-2	1	2	20	23	3	■		5	5	■
1L5	amp.	5	1	6	45	2	■	5	2	6	■ 1-7
"	osc.	1	1	30	45	2	■		3	4	■
1LA4		1	1	33	17	2	■	3	2	5	■ 1-8
1LA6	amp.	4	1	25	30	2	■	5	2	6	■ 1-8
"	osc.	1	1	30	45	2	■		3	4	■
1LB4		1	1	25	23	2	■	3	2	6	■ 1-8
1LC5		1	1	18	40	2	■	5	3	2	■ 1-5-8
1LC6	amp.	4	1	28	25	2	■	5	2	6	■ 1-8
"	osc.	1	1	35	40	2	■		3	4	■
1LD5	pent.	1	1	27	31	2	■	3	2	6	■ 1-8
"	diode	3	1	0	27	2	■		4		■

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.
							W	X	Y	Z	
UY-11		1	2	0	4	14	■		5		■ 2-3
(UY-11—Fil. Cont.—Set control "E" at 12)											
*UY-41		2	1	0	3	13	■		2		■ 1-1
(UY-41—Fil. Cont.—Set control "E" at 12)											
UY-55		3	4	0	16	13	■	1-6		9	■ 4-5
(UY-55—May show short on 1-6-9)											
(UY-55—Plate short test—Depress 1-6-9 together)											
XC-97		1	3	13	10	4	■		5	2	■ 3-4
(XC-97—Must show short on 1-7)											
(XC-97—Cathode short test—Depress 1-7 together)											
XF-183		1	4	5	23	5	■		8	7	■ 4-5
(XF-183—Must show short on 1-3)											
(XF-183—Cathode short test—Depress 1-3 together)											
XF-184		1	4	5	25	5	■		8	7	■ 4-5
(XF-184—Must show short on 1-3)											
(XF-184—Cathode short test—Depress 1-3 together)											
XY-88		1	4	0	4	11	■	3-8		9	■ 4-5
(XY-88—May show short on 1-2-3-6-7-8-9)											
YC-97		1	3	13	10	5	■		5	2	■ 3-4
(YC-97—Must show short on 1-7)											
(YC-97—Cathode short test—Depress 1-7 together)											
YF-183		1	4	5	25	5z	■		8	7	■ 4-5
(YF-183—Must show short on 1-3)											
(YF-183—Cathode short test—Depress 1-3 together)											
(YF-183—Set switch "E" to No. 6 if there is no 5z position)											
YF-184		1	4	5	25	5z	■		8	7	■ 4-5
(YF-184—Must show short on 1-3)											
(YF-184—Cathode short test—Depress 1-3 together)											
(YF-184—See switch "E" to No. 6 if there is no 5z position)											

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.		
							W	X	Y	Z			
UBF-15	pent.	1	2	13	18	12	■	6	1	7	■	2-3	
"	diode-1	3	2	0	19	12	■		5		■		
"	diode-2	3	2	0	19	12	■		4		■		
UBF-80	pent.	4	4	12	10	11	■	1	6	2	■	4-5	
"	diode-1	3	4	0	23	11	■		8		■		
"	diode-2	3	4	0	23	11	■		7		■		
UBF-89	pent.	1	4	21	17	11	■	1	6	2	■	4-5	
"	diode-1	3	4	0	20	11	■		7		■		
"	diode-2	3	4	0	20	11	■		8		■		
UC-92	triode-1	1	3	30	10	9	■		1	6	■	3-4	
UCC-85	triode-1	1	4	25	11	12	■		6	7	■	4-5	
"	triode-2	1	4	25	11	12	■		1	2	■		
UCH-42	triode	5	1	25	10	10	■		3	4	■	1-8	
"	hexode	4	1	16	10	10	■	5	2	6	■		
UCH-81	heptode	1	4	26	32	11	■	1	6	2	■	4-5	
"	triode	1	4	26	11	11	■		8	9	■		
UCL-81	triode	4	4	10	10	13	■		7	1	■	4-5	
"	pent.	1	4	15	10	13	■	2	6	9	■		
(UCL-81—Must show short on 3-8)													
(UCL-81—Cathode short test—Depress 3-8 together)													
UF-11		4	2	8	10	10	■	6	5	7	■	2-3	
UF-15		4	2	3	10	12	■	6	5	7	■	2-3	
UF-41		1	1	20	20	10	■	5	2	6	■	1-8	
(UF-41—May show short on 3-7)													
(UF-41—Cathode short test—Depress 3-7 together)													
UF-80		1	4	8	28	11	■	8	7	2	■	4-5	
(UF-80—Must show short on 1-3)													
(UF-80—Cathode short test—Depress 1-3 together)													
UF-85		4	4	3	10	11	■	8	7	2	■	4-5	
(UF-85—Must show short on 1-3)													
(UF-85—Cathode short test—Depress 1-3 together)													
UF-89		1	4	20	25	10	■	8	7	2	■	4-5	
(UF-89—Must show short on 1-6)													
UL-41		1	1	4	10	14	■	5	2	6	■	1-8	
(UL-41—Must show short on 3-7)													
(UL-41—Cathode short test—Depress 3-7 together)													
(UL-41—Fil. Cont.—Set control "E" at 12)													
UL-84		1	4	5	9	13	■	1-6-8	9	7	2	■	4-5
(UL-84—Fil. Cont.—set control "E" at 12)													
(UL-84—May show short on 1-2-6-8-9)													
(UL-84—Grid short test—depress 1-2 together)													
(UL-84—Screen short test—depress 6-8-9 together)													
UM-11	triode	5	2	23	10	10	■		5	7	■	2-3	
"	eye	4	2	0	0	10	■		5-6-1		■		
(UM-11—See instructions for eye test)													
UM-36	triode	4	1	4	10	10	■		6	5	■	1-2	
"	eye	7	1	0	0	10	■		3-6-4		■		
(UM-36—See instructions for eye test)													
UM-80	triode	2	4	36	10	11	■		7	1	■	4-5	
"	eye	1	4	0	0	11	■		7-3-6-9		■		
(UM-80—Must show short on 3-6-9)													
(UM-80—See instructions for eye test)													

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.	
							W	X	Y	Z		
1LE3		1	1	13	24	2	■			2	6	1-8
1LF3		1	1	13	24	2	■			2	6	1-8
1LG5		1	1	21	35	2	■	5	3	2	6	1-5-8
1LH4	triode	5	1	12	46	2	■			2	6	1-8
"	diode	3	1	0	27	2	■			4		
1LN5		1	1	25	35	2	■	5	3	2	6	1-5-8
1M3	eye	3	4	0	0	2	■			1-8		4-5
(1M3—See instructions for eye test)												
1N3	eye	3	4	0	0	2	■			1-8		4-5
(1N3—See instructions for eye test)												
1N5		1	2	25	40	2	■		4	3	11	2-7
1N6	pent.	1	2	30	20	2	■		4	3	5	2-7
"	diode	3	2	0	37	2	■			6		
1P5		1	2	22	42	2	■		4	3	11	2-7
1Q5		1	2	26	12	2	■		4	3	5	2-7
1Q6	pent.	5	5	15	30	2	■		8	7	2	4-5
"	diode	3	5	0	27	2	■			6		
1S2	Caution:—Levers 5-8 must be thrown to position "W" BEFORE inserting tube and must remain in position "W" throughout ALL TESTS, INCLUDING SHORT TESTS.											
"		7	2	0	14	2	■	5-8		11		†
(†1S2—Fil. Cont.—Must show short on 1, 2, 4, 6, 9)												
(1S2—May show short on 3-7)												
1S4		1	7	26	15	2	■	5-6	4	2	3	1-5-7
(1S4—Must show short on 2-6)												
(1S4—Plate short test—Depress 2-6 together)												
1SA6		1	2	31	24	2	■		6	8	4	2-7
1SB6	pent.	4	2	6	34	2	■		4	3	8	2-7
"	diode	3	2	0	32	2	■			5		
1T6	pent.	5	4	7	41	2	■		8	1	3	4-5
"	diode	3	4	0	28	2	■			6		
1U6	amp.	4	1	4	35	2	■		5	2	6	1-7
"	osc.	4	1	19	45	2	■			3	4	
1V		2	1	0	3	7	■			2		1-4
1V5		5	5	15	17	2	■		8	7	2	4-5
1V6	triode	3	4	7	39	2	■			6	5	4-7
"	pent.	3	4	8	36	2	■		2	1	3	
1W4		1	1	26	23	2	■		3	2	6	1-7
1W5		5	5	14	25	2	■		8	7	2	4-5
2A3		1	1	40	4	4	■			2	3	1-4
2A4		2	2	0	3	4	■			3	5	2-7
2A5		1	1	34	10	4	■		3	2	4	1-6
2A6	triode	1	1	12	40	4	■			2	11	1-6
"	diode-1	3	1	0	27	4	■			3		
"	diode-2	3	1	0	27	4	■			4		
2A7	amp.	4	1	40	19	4	■		3	2	11	1-7
"	osc.	1	1	28	31	4	■			4	5	
2B4		2	1	0	2	4	■			3		1-5
2B5	Caution:—Lever 2 must be thrown to position "W" BEFORE inserting tube and MUST remain in position "W" throughout ALL TESTS, INCLUDING SHORT TESTS.											
"	triode-1	1	7	11	28	2	■	2		8	6	4-5-7
"	triode-2	1	7	11	28	2	■	2		1	3	
2B6	input	1	1	26	27	4	■			3	4	1-7
"	output	1	1	34	8	4	■			2	5	
2B7	pent.	1	1	27	26	4	■		3	2	11	1-7
"	diode-1	3	1	0	27	4	■			4		
"	diode-2	3	1	0	27	4	■			5		

Tube	Section	Lever										Fil. Cont.	
		A	B	C	D	E	W	X	Y	Z			
2C22		1	2	32	7	7	■			11	12	■ 2-7	
(2C22—Black cap on side nearest octal key)													
2C51	triode-1	1	1	21	9	7	■			4	3	■ 1-9	
"	triode-2	1	1	21	9	7	■			6	7	■	
2C52	triode-1	1	7	30	14	10	■			2	1	■ 7-8	
"	triode-2	1	7	30	14	10	■			5	4	■	
2D21		7	3	0	3	7	■			6	1	■ 3-4	
(2D21—Must show short on 5-7) (2D21—Screen short test—Depress 5-7 together)													
2E5	triode	1	1	20	31	4	■			2	3	■ 1-6	
"	eye	1	1	0	0	4	■			2	4	■	
(2E5—See instructions for Eye Test)													
2E24		(Caution—Levers 4-6 MUST be thrown to position "W" BEFORE inserting tube, and MUST remain in position "W" throughout ALL TESTS, INCLUDING SHORT TESTS)											
"		6	1	38	3	4	■	4-6	3	11	5	■ 1-2-7	
2E25		1	2	36	10	7	■			4	11	5	■ 2-7
2E26		1	2	16	8	7	■			3	11	5	■ 2-7
(2E26—Must show short on 1-4-6) (2E26—Cathode short test—Depress 1-4-6 together)													
2E30		1	7	28	10	5	■			6	5	1	■ 3-4-7
2E31		5	3	5	35	2	■			2	1	4	■ 3-5
2E32		5	3	5	35	2	■			2	1	4	■ 3-5
2E35		5	3	5	35	2	■			2	1	4	■ 3-5
2E36		5	3	5	35	2	■			2	1	4	■ 3-5
2E41	pent	5	4	5	38	2	■			2	1	5	■ 4-6
"	diode	3	4	0	45	2	■			3	*		
*(2E41—Place 600 ohm resistor in series with diode plate lead No. 3 to reduce current drain.)													
2E42		(See 2E41.)											
2G5	triode	1	1	19	20	4	■			2	3	■ 1-6	
"	eye	1	1	0	0	4	■			2	4	■	
(2G5—See instructions for Eye Test)													
2G21	triode	5	4	7	34	2	■			1	3	■ 4-7	
"	heptode	3	4	19	31	2	■			2	6	3	■
2G22	triode	5	4	7	34	2	■			1	3	■ 4-7	
"	heptode	3	4	19	31	2	■			2	6	3	■
2T4		2	3	23	11	4	■	1-2		7	6	■ 3-4	
(2T4—Must show short on 1-2-6-7) (2T4—Grid short test—depress 2-6 together) (2T4—Plate short test—depress 1-7 together)													
2W3		2	2	0	9	4	■			4		■ 2-8	
2X2-879		1	1	0	21	4	■			11		■ 1-4	
2X3		2	2	0	8	4	■			4		■ 2-8	
2Y3		2	2	0	7	4	■			4		■ 2-8	
2Z2		2	1	0	11	4	■			2		■ 1-4	
3A4		1	5	26	12	2	■	6	3	2	4	■ 1-5-7	
(3A4—Must show short on 2-6) (3A4—Plate short test—Depress 2-6 together)													
3A5	triode-1	1	4	20	14	2	■			2	3	■ 1-4-7	
"	triode-2	1	4	20	14	2	■			6	5	■	
3A6	diode	3	1	0	27	2	■			5		■ 1-2-7	
"	triode	1	1	20	50	2	■			6	5	■	
"	pent.	1	1	27	34	2	■	4	3	11		■	

Tube	Section	Lever										Fil. Cont.	
		A	B	C	D	E	W	X	Y	Z			
PABC-80	triode	4	4	10	10	9	■			9	8	■	4-5
"	diode-1	3	4	0	23	9	■			6		■	
"	diode-2	3	4	0	16	9	■			2		■	
"	diode-3	3	4	0	16	9	■			1		■	
PC-86		2	4	19	10	5	■	1-2-6		9	3	■	4-5
(PC-86—Must show short on 1-2-3-6-7-8-9)													
(PC-86—Plate short test—Depress 1-9 together)													
(PC-86—Grid short test—Depress 2-6-8 together)													
(PC-86—Cathode short test—Depress 3-7 together)													
PCC-84	triode-1	5	4	10	10	8	■			9	6	■	4-5
"	triode-2	5	4	10	10	8	■			3	3	■	
(PCC-84—Must show short on 7-8)													
(PCC-84—Cathode short test, section 1—Depress 7-8 together)													
PCC-85	triode-1	1	4	25	10	8	■			6	7	■	4-5
"	triode-2	1	4	25	10	8	■			1	2	■	
PCC-88	triode-1	2	4	12	10	7	■			6	7	■	4-5
"	triode-2	2	4	12	10	7	■			1	2	■	
PCF-80	triode	5	4	12	10	8	■			1	9	■	4-5
"	pent.	1	4	18	19	8	■		3	6	2	■	
PCF-82	triode	1	4	28	8	9	■			1	9	■	4-5
"	pent.	1	4	14	29	9	■		3	6	2	■	
PCL-81	triode	1	4	30	10	10	■			7	1	■	4-5
"	pent.	1	4	14	10	10	■			2	6	9	■
(PCL-81—Must show short on 3-8)													
(PCL-81—Cathode short test—Depress 3-8 together)													
PCL-84	triode	1	4	26	10	10	■			2	1	■	4-5
"	pent.	1	4	15	13	10	■		9	6	8	■	
PL-36		2	2	0	3	12	■	1	4	11	5	■	2-7
(PL-36—Must show short on 1-3-4-8)													
(PL-36—Cathode short test—Depress 3-8 together)													
(PL-36—Screen short test—Depress 1-4 together)													
FY-80		1	4	0	4	10	■			9		■	4-5
PY-81		7	4	0	4	10	■	2		9		■	4-5
(PY-81—Must show short on 2-9)													
(PY-81—Plate short test—Depress 2-9 together)													
PY-82		7	4	0	3	10	■			9		■	4-5
PY-83		7	4	0	3	11	■			9		■	4-5
PY-88		1	4	0	4	12	■	3-8		9		■	4-5
(PY-88—May show short on 1-2-3-6-7-8-9)													
UAA-81	diode-1	3	3	0	16	11	■			7		■	3-4
"	diode-2	3	3	0	16	11	■			2		■	
UABC-80	triode	1	4	35	12	12	■			9	8	■	4-5
"	diode-1	3	4	0	25	12	■			6		■	
"	diode-2	3	4	0	17	12	■			2		■	
"	diode-3	3	4	0	17	12	■			1		■	
UBC-41	triode	4	1	15	10	10	■			3		■	1-8
"	diode-1	3	1	0	27	10	■			6		■	
"	diode-2	3	1	0	27	10	■			5		■	
UBC-81	triode	1	4	34	10	10	■			1	2	■	4-5
"	diode-1	3	4	0	25	10	■			8		■	
"	diode-2	3	4	0	25	10	■			6		■	
(UBC-81—May show short on 7-9)													

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.	
							W	X	Y	Z		
EM-35	triode	1	2	13	25	7	■			3	4	2-7
"	eye	7	2	0	0	7	■			3-6-5		
(EM-35—See instructions for eye test)												
EM-80	triode	1	4	19	20	7	■			7	1	4-5
"	eye	7	4	0	0	7	■			3-6	7-9	
(EM-80—See instructions for eye test)												
(EM-80—May show short on 3-6-9)												
EM-81	triode	3	4	24	23	7	■			7	1	4-5
"	eye	7	4	0	0	7	■			3-8	7-9	
(EM-81—Must show short on 3-8-9)												
(EM-81—See instructions for eye test)												
EM-84	triode	3	4	25	45	7	■			9	1	4-5
"	eye	4	4	0	0	7	■			2-8	7-6	
(EM-84—Must show short on 2-6-8)												
(EM-84—See instructions for eye test)												
EY-51		1	2	0	21	7	■			11		1-2
(EY-51—Connect 2 bottom leads to octal sockets Pins 1 and 2. Top lead connect to grip cap.)												
EY-86	Caution:—Levers 5-8 must be thrown to position "W" BEFORE inserting tube and must remain in position "W" throughout ALL TESTS, INCLUDING SHORT TESTS.											
"		7	2	0	14	7	■			5-8	11	*
*(EY-86—Fil. Cont.—Must show short on 1-2-4-6-9)												
EY-88		1	4	0	4	7	■			3-8	9	4-5
(EY-88—May show short on 1-2-3-6-7-8-9)												
EZ-11	plate-1	1	2	0	5	7	■			6		2-3
"	plate-2	1	2	0	5	7	■			5		
EZ-35	plate-1	2	2	0	3	7	■			5		2-7
"	plate-2	2	2	0	3	7	■			2		
EZ-80	plate-1	2	4	0	4	7	■			5		4-5
"	plate-2	2	4	0	4	7	■			7		
EZ-81	plate-1	2	4	0	1	7	■			1		4-5
"	plate-2	2	4	0	1	7	■			7		
EZ-90	plate-1	2	3	0	3	7	■			1		3-4
"	plate-2	2	3	0	3	7	■			6		
GZ-30	plate-1	2	2	0	2	6	■			6		2-8
"	plate-2	2	2	0	2	6	■			4		
GZ-34	plate-1	1	2	0	4	6	■			4		2-8
"	plate-2	1	2	0	4	6	■			6		
HBC-90	triode	1	3	13	30	10	■			7	1	3-4
"	diode-1	2	3	0	26	10	■			5		
"	diode-2	3	3	0	26	10	■			6		
HF-93		1	3	28	15	10	■			6	1	3-4
RK-90	amp.	4	3	7	27	10	■			6	5	3-4
"	osc.	1	3	21	9	10	■			6	1	
HL-92		1	3	8	8	14	■			2	6	3-4
(HL-92—Must show short on 2-5)												
(HL-92—Grid short test—depress 2-5 together)												
(HL-92—Fil. Cont.—set control "E" at 12)												
HY-90		2	3	0	1	13	■			6	5	3-4-6
KT-66		1	2	14	9	7	■			4	3	2-7
KT-88		1	2	0	10	7	■			4	3	2-7

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.		
							W	X	Y	Z			
3B5		1	8	22	13	2	■		4	3	5	■	2-7-8
3B7	triode-1	1	4	17	18	2	■			7	6	■	1-4-8
"	triode-2	1	4	17	18	2	■			2	3	■	
3C4		1	5	30	10	2	■		3	2	6	■	1-5-7
3C5		1	8	27	13	2	■		4	3	5	■	2-7-8
3D6		1	7	18	15	2	■		3	2	6	■	1-7-8
3E6		1	5	21	26	2	■		6	2	6	■	1-5-6
3Q4		1	5	27	15	2	■	2	4	6	3	■	1-5-7
(3Q4—Must show short on 2-6)													
(3Q4—Plate short test—Depress 2-6 together)													
3Q5		1	8	26	12	2	■		4	3	5	■	2-7-8
4A6	triode-1	1	8	25	22	3	■			6	5	■	2-7-8
"	triode-2	1	8	25	22	3	■			3	4	■	
5A6		1	9	20	10	4	■		6	1	7	■	4-5-9
(5A6—Must show short on 3-8)													
(5A6—Suppressor short test—Depress 3-8 together)													
5B8	triode	1	4	9	14	6	■			3	2	■	4-5
"	pent.	1	4	5	29	6	■		8	9	6	■	
(5B8—May show short on 1)													
5J6	triode-1	1	3	16	13	6	■			2	5	■	3-4
"	triode-2	1	3	16	13	6	■			4	6	■	
5T4	plate-1	2	2	0	4	6	■			6		■	2-8
"	plate-2	2	2	0	4	6	■			4		■	
5V3	plate-1	2	2	0	4	6	■			4		■	2-8
"	plate-2	2	2	0	4	6	■			6		■	
5V4	plate-1	2	2	0	2	6	■			4		■	2-8
"	plate-2	2	2	0	2	6	■			6		■	
5W4	plate-1	2	2	0	9	6	■			4		■	2-8
"	plate-2	2	2	0	9	6	■			6		■	
5X4	plate-1	2	7	0	5	6	■			3		■	7-8
"	plate-2	2	7	0	5	6	■			5		■	
5Y4	plate-1	2	7	0	8	6	■			3		■	7-8
"	plate-2	2	7	0	8	6	■			5		■	
5Z3	plate-1	2	1	0	5	6	■			2		■	1-4
"	plate-2	2	1	0	5	6	■			3		■	
5Z4	plate-1	2	2	0	2	6	■			4		■	2-8
"	plate-2	2	2	0	2	6	■			6		■	
6A3		1	1	40	4	7	■			2	3	■	1-4
6A4-LA		1	1	30	10	7	■		4	2	3	■	1-5
6A5		1	8	40	4	5	■			3	5	■	2-7-8
6A6	triode-1	1	1	36	7	7	■			6	5	■	1-7
"	triode-2	1	1	36	7	7	■			2	3	■	
6A7	amp.	4	1	40	19	7	■		3	2	11	■	1-7
"	osc.	1	1	28	31	7	■			4	5	■	
6A8	amp.	4	2	29	24	7	■		4	3	11	■	2-7
"	osc.	1	2	33	28	7	■			6	5	■	
6AB5	triode	1	1	23	19	7	■			2	3	■	1-6
"	eye	1	1	0	0	7	■			2	4	■	
(6AB5—See instructions for eye test)													
6AB6	input	1	2	31	18	7	■			4	5	■	2-7
"	output	1	2	34	10	7	■		4	3	5	■	
6AB7		1	2	12	22	7	■		6	8	4	■	2-7
6AC5		1	2	37	8	7	■			3	5	■	2-7
6AC6		1	2	29	8	7	■		4	3	5	■	2-7
6AD6		1	2	0	0	7	■			3	4	5	2-7
(6AD6—See instructions for eye test)													
6AE6	triode-1	1	2	18	35	7	■			3	5	■	2-7
"	triode-2	1	2	18	38	7	■			4	5	■	

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.			
							W	X	Y	Z				
6AE7	triode-1	1	2	34	7	7	■			3	6	■	2-7	
	triode-2	1	2	34	7	7	■			3	4	■		
6AF3		3	4	0	15	7		2		9		■	4-5	
(6AF3—May show short on 2-9)														
6AF6	eye	1	2	0	0	7	■			3-4-5		■	2-7	
(6AF6—See instructions for eye test)														
6AG6		1	2	22	10	7	■		4	3	5	■	2-7	
6AH4		2	2	27	7	7	■			5	1	■	2-7	
6AH5		1	2	24	9	7			1	4	6	■	2-7	
6AH6		1	3	8	25	7			6	5	1	■	3-4	
6AH7	triode-1	1	7	29	10	7	■			3	1	■	7-8	
"	triode-2	1	7	29	10	7	■			6	5	■		
6AJ4		2	7	21	18	7		*		5	9	■	7-8	
*(6AJ4—Throw levers 1-3-4-6 to "W")														
(6AJ4—Must show short on 1-3-4-6-9)														
(6AJ4—Grid short test—Depress 1-3-4-6-9 together)														
6AK4		2	3	12	18	7	■			8	1	■	3-6	
6AK7		1	2	14	13	7	■		6	8	4	■	2-7	
6AK8	triode	4	4	14	10	7	■			9	8	■	4-5	
"	diode-1	3	4	0	24	7	■			6		■		
"	diode-2	3	4	0	16	7	■			2		■		
"	diode-3	3	4	0	16	7	■			1		■		
6AL6		1	2	24	9	7	■		4	11	5	■	2-7	
6AL7	eye	7	2	7	0	7	■			3	4-5-6	■	2-7	
(6AL7—See instructions for FM/AM eye tests)														
6AN5		1	3	13	7	7	■			6	5	1	■	3-4
(6AN5—Must show short on 2-7)														
(6AN5—Cathode short test—Depress 2-7 TOGETHER)														
6AQ7	triode	1	7	15	30	7	■			5	4	■	7-8	
"	diode-1	3	7	0	23	7	■			3		■		
"	diode-2	3	7	0	23	7	■			1		■		
6AS6		1	3	11	32	7	■		6	5	1	■	3-4	
6AS7	triode-1	1	7	30	4	7	■			5	4	■	7-8	
"	triode-2	1	7	30	4	7	■			2	1	■		
6AU7	tri-1	1	9	27	10	5	■			1	2	■	4-5-9	
"	tri-2	1	9	27	10	5	■			6	7	■		
6AX7	triode-1	1	9	8	38	5	■			6	7	■	4-5-9	
"	triode-2	1	9	8	38	5	■			1	2	■		
6B4		1	2	40	4	7	■			3	5	■	2-7	
6B5	input	1	1	40	15	7	■			3	4	■	1-6	
"	output	1	1	38	9	7	■		3			■		
6B6	triode	1	2	12	37	7	■			3	11	■	2-7	
"	diode-1	3	2	0	27	7	■			5		■		
"	diode-2	3	2	0	27	7	■			4		■		
6B7	pent.	1	1	29	25	7	■		3	2	11	■	1-7	
"	diode-1	3	1	0	27	7	■			5		■		
"	diode-2	3	1	0	27	7	■			4		■		
6B8	pent.	1	2	29	25	7	■		6	3	11	■	2-7	
"	diode-1	3	2	0	27	7	■			4		■		
"	diode-2	3	2	0	27	7	■			5		■		
6BA7	amp.	4	4	10	21	7	■		1	9	7	■	4-5	
"	osc.	1	4	32	6	7	■			1	2	■		
6BA8	tri.	1	4	25	10	7	■			3	2	■	4-5	
"	pent.	1	4	5	22	7	■		8	9	7	■		
6BC7	diode-1	2	4	0	16	7	■			9		■	4-5	
"	diode-2	3	4	0	16	7	■			6		■		
"	diode-3	3	4	0	16	7	■			2		■		

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.		
							W	X	Y	Z			
EF-91		4	3	10	10	7	■		7	6	1	■	3-4
EF-92		4	3	28	10	7	■					■	3-4
EF-93		1	3	28	15	7	■		7	5	1	■	3-4
EF-94		1	3	13	27	7	■		6	5	1	■	3-4
EF-97		5	3	0	9	7	■		6	5	1	■	3-4
EF-98		5	3	0	9	6	■		6	5	1	■	3-4
EF-183		1	4	5	23	7	■		8	7	2	■	4-5
(EF-183—Must show short on 1-3)													
(EF-183—Cathode short test—Depress 1-3 together)													
EF-184		1	4	5	25	7	■		8	7	2	■	4-5
(EF-184—Must show short on 1-3)													
(EF-184—Cathode short test—Depress 1-3 together)													
EF-804		4	4	17	10	7	■		8	7	9	■	4-5
(EF-804—May show short on 2-6)													
EH-90	amp.	4	3	7	28	7	■		6	5	7	■	3-4
"	osc.	1	3	22	10	7	■			6	1	■	3-4
EK-90	amp.	4	3	7	27	7	■		6	5	7	■	3-4
"	osc.	1	3	21	9	7	■			6	1	■	3-4
EL-11		1	2	18	10	7	■		6	5	7	■	2-3
EL-12		1	2	18	7	7	■		6	5	7	■	2-3
EL-32		1	2	29	10	7	■		4	3	11	■	2-7
EL-33		1	2	22	10	7	■		4	3	5	■	2-7
EL-34		1	2	15	7	7	■		4	3	5	■	2-7
EL-37		1	7	6	11	7	■		4	3	5	■	2-7
EL-38		1	2	13	10	6	■		4	11	5	■	2-7
*EL-41		1	1	12	10	7	■		5	2	6	■	1-8
(EL-41—Must show short on 3-7)													
(EL-41—Cathode short test—depress 3-7 together)													
EL-84		1	4	28	7	7	■	1	9	7	2	■	4-5
(EL-84—Must show short on 1-2)													
(EL-84—Grid short test—depress 1-2 together)													
EL-95		1	4	30	10	7	■	1	9	7	2	■	4-5
(EL-95—Must show short on 1-2-6-8)													
(EL-95—Grid short test—Depress 1-2 together)													
(EL-95—Suppressor short test—Depress 6-8 together)													
EL-86		1	4	0	10	6	■	1-6-8	9	7	2	■	4-5
(EL-86—May show short on 1-2-6-7-8-9)													
(EL-86—Grid short test—Depress 1-2 together)													
(EL-86—Plate short test—Depress 7-8 together)													
(EL-86—Screen short test—Depress 6-9 together)													
EL-90		1	3	32	8	7	■	1	6	5	7	■	3-4
(EL-90—Must show short on 1-7)													
(EL-90—Grid short test—depress 1-7 together)													
EL-91		1	3	31	10	7	■		7	5	1	■	3-4
EL-95		1	3	25	10	7	■	1	6	5	7	■	3-4
(EL-95—May show short on 1-7)													
(EL-95—Grid short test—depress 1-7 together)													
EM-11	triode	1	2	31	10	7	■		5	7		■	2-3
"	eye	1	2	0	0	7	■			5-6-1		■	2-3
(EM-11—See instructions for eye test)													
EM-34		7	2	0	0	7	■		3-6-5			■	2-7
(EM-34—See instructions for eye test)													

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.
							W	X	Y	Z	
ECC-91	triode-1	1	3	16	13	7	■		2	5	■ 3-4
"	triode-2	1	3	16	13	7	■		1	6	■ 3-6
ECC-189	triode-1	2	4	12	10	7	■		6	7	■ 4-5
"	triode-2	2	4	13	10	7	■		1	2	■ 4-5
ECF-12	triode	5	2	23	10	7	■		5	4	■ 2-3
"	pent.	4	2	10	15	7	■		6	1	■ 7
ECF-80	triode	1	4	14	10	6	■		1	9	■ 4-5
"	pent.	1	4	23	16	6	■		3	6	■ 2
ECF-82	triode	1	4	28	8	7	■		1	9	■ 4-5
"	pent.	1	4	14	29	7	■		3	6	■ 2
ECF-86	triode	1	4	5	10	7	■		7	6	■ 4-5
"	pent.	1	4	7	25	7	■		9	8	■ 2
(ECF-86—May show short on 1-3)											
(ECF-86—Cathode short test—Depress 1-3 together)											
ECH-35	triode	1	2	30	10	7	■		6	5	■ 2-7
"	hexode	1	2	18	34	7	■		4	3	■ 11
ECH-42	triode	1	1	30	10	7	■		3	11	■ 1-8
"	hexode	1	1	5	38	7	■		5	2	■ 6
ECH-81	amp.	1	4	14	31	7	■		1	6	■ 2
"	osc.	1	4	25	10	7	■		1	2	■ 4-5
"	triode	1	4	25	13	7	■		8	9	■ 9
ECH-83	amp.	1	4	17	29	7	■		1	6	■ 2
"	osc.	3	4	10	23	7	■		1	2	■ 4-5
"	triode	1	4	27	10	7	■		8	9	■ 9
ECL-11	triode	5	2	29	10	7	■		6	7	■ 2-3
"	tetrode	1	2	26	10	7	■		4	1	■ 5
ECL-80	pent.	1	4	26	10	7	■		8	6	■ 9
"	triode	1	4	34	10	7	■		1	2	■ 4-5
ECL-82	triode	1	4	31	11	7	■		9	1	■ 4-5
"	pent.	1	4	10	12	7	■		7	6	■ 3
ECL-84	triode	1	4	31	10	7	■		9	6	■ 8
"	pent.	1	4	26	11	7	■		3	6	■ 8
ECL-86	triode	4	4	15	10	7	■		3	6	■ 8
"	pent.	1	4	19	10	7	■		6	5	■ 7
EF-12	triode	4	2	11	10	7	■		1	5	■ 6
EF-14	triode	4	2	3	10	7	■		6	5	■ 7
EF-15	triode	4	2	0	11	7	■		4	3	■ 11
EF-39	triode	4	2	11	10	7	■		6	2	■ 5
EF-40	triode	5	1	7	27	7	■		5	2	■ 6
(EF-40—May show short on 3-7)											
*EF-41	triode	1	1	8	32	7	■		5	2	■ 6
(EF-41—May show short on 3-7)											
EF-42	triode	4	1	10	10	7	■		5	2	■ 6
EF-80	triode	1	4	8	29	7	■		3	8	■ 7
(EF-80—Must show short on 1-3)											
(EF-80—Cathode short test—depress 1-3 together)											
EF-83	triode	5	4	0	28	7	■		1	6	■ 9
(EF-83—May show short on 2-7)											
EF-85	triode	4	4	5	10	7	■		3	8	■ 7
(EF-85—Must show short on 1-3)											
(EF-85—Cathode short test—depress 1-3 together)											
EF-86	triode	1	4	17	30	7	■		1	6	■ 9
(EF-86—Must show short on 2-7)											
EF-89	triode	1	4	8	28	7	■		8	7	■ 2
(EF-89—May show short on 1-6)											

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.
							W	X	Y	Z	
6BG7	triode-1	5	3	9	13	7	■		8	7	■ 3-6
"	triode-2	5	3	9	13	7	■		1	2	■ 3-6
6BJ7	diode-1	3	4	0	17	7	■		6	8	■ 4-5
"	diode-2	3	4	0	17	7	■		2	6	■ 4-5
"	diode-3	3	4	0	17	7	■		2	6	■ 4-5
(6BJ7—May show short on 3)											
6BR5	triode	1	4	19	20	7	■		7	1	■ 4-5
"	eye	7	4	0	0	7	■		3-6	7-9	■ 4-5
(6BR5—May show short on 3-6-9)											
(6BR5—See instructions for eye test)											
6C5	triode	1	2	15	18	7	■		3	5	■ 2-7
6C8	triode	1	1	28	20	7	■		3	2	■ 11
6C7	triode	1	1	25	15	7	■		2	11	■ 1-7
"	diode-1	3	1	0	27	7	■		4	5	■ 4
"	diode-2	3	1	0	27	7	■		4	5	■ 4
6C8	triode-1	1	2	31	11	7	■		3	11	■ 2-7
"	triode-2	1	2	31	11	7	■		6	5	■ 5
6CD7	eye	7	2	0	0	7	■		3-6-5		■ 2-7
(6CD7—See instructions for eye test)											
6DA	triode	7	3	0	4	7	■		7		■ 3-4
6D5	triode	1	2	38	6	7	■		3	5	■ 2-7
6D6	triode	1	1	27	19	7	■		3	2	■ 11
6D7	triode	1	1	28	20	7	■		3	2	■ 11
6D8	amp.	4	2	40	20	7	■		4	3	■ 11
"	osc.	1	2	30	33	7	■		6	5	■ 5
6DA5	triode	3	4	24	23	7	■		7	1	■ 4-5
"	eye	7	4	0	0	7	■		3-8	7-9	■ 4-5
(6DA5—Must show short on 3-8-9)											
(6DA5—See instructions for eye test)											
6DZ7	pent.-1	1	2	17	10	7	■		4	6	■ 5
"	pent.-2	1	2	15	10	7	■		4	3	■ 1
6E5	triode	1	1	25	24	7	■		2	3	■ 1-6
"	eye	1	1	0	0	7	■		2-4		■ 1-6
(6E5—See instructions for eye test)											
6E6	triode-1	1	1	30	9	7	■		2	3	■ 1-7
"	triode-2	1	1	30	9	7	■		6	5	■ 2-7
6E7	triode	1	1	29	18	7	■		3	2	■ 11
6F4	triode	1	1	35	5	7	■		2-7	3	■ 8
(6F4—Plate short test—depress 2-3 together)											
(6F4—Grid short test—depress 7-8 together)											
(6F4—Must show short on 2-3-7-8 individually)											
6F5	triode	1	2	12	33	7	■		4	11	■ 2-7
6F6	triode	1	2	32	10	7	■		4	3	■ 5
"	pent.	1	1	41	15	7	■		4	5	■ 1-7
6F8	triode-1	1	1	28	27	7	■		3	2	■ 11
"	triode-2	1	2	15	16	7	■		3	11	■ 2-7
6FG6	triode	3	4	25	45	7	■		9	1	■ 4-5
"	eye	4	4	0	0	7	■		2-8	7-6	■ 4-5
(6FG6—Must show short on 2-6-8)											
(6FG6—See instructions for eye test)											
6FH5	triode	1	3	21	10	7	■		5	2	■ 3-4
(6FH5—Must show short on 1-7)											
(6FH5—Cathode short test—Depress 1-7 together)											



Tube	Section	A	B	C	D	E	W	Lever				Fil. Cont.	
								X	Y	Z			
6G5	triode	1	1	19	27	7	■				3	■	1-6
"	eye	1	1	0	0	7	■			2-4		■	
(6G5—See instructions for eye test)													
6G6		1	2	32	10	7	■		4	3	5	■	2-7
6G7	pent.	1	1	32	12	7	■		3	2	11	■	1-7
"	rect.-1	2	1	0	5	7	■			6		■	
"	rect.-2	2	1	0	5	7	■			4		■	
(6G7—Must show short on 3)													
6H4		3	2	0	18	7	■			4		■	2-7
6H5	triode	1	1	14	27	7	■			2	3	■	1-6
"	eye	1	1	0	0	7	■			2-4		■	
(6H5—See instructions for eye test)													
6H6	diode-1	3	2	0	18	7	■			6		■	2-7
"	diode-2	3	2	0	18	7	■			3		■	
6J4		1	3	33	6	7	■	1-6		7	6	■	3-4
(6J4—Must show short on 1-6-6)													
(6J4—Grid short test—depress 1-5-6 together)													
6J7		1	2	28	20	7	■		4	3	11	■	2-7
6J8	triode	1	2	20	18	7	■			6	5	■	2-7
"	heptode	4	2	8	25	7	■		4	3	11	■	
6K5		1	2	11	30	7	■			3	11	■	2-7
6K7		1	2	15	32	7	■			4	3	■	2-7
6K8	triode	1	2	28	18	7	■			6	5	■	2-7
"	heptode	4	2	15	32	7	■		4	3	11	■	
6L5		1	2	16	18	7	■			3	5	■	2-7
6L7	amp.	4	2	10	29	7	■		4	3	5	■	2-7
"	esc.	3	2	12	25	7	■			4	11	■	
6N4		1	3	26	8	7	■	1		5	7	■	3-4
(6N4—Grid short test—Depress 1-7 together)													
(6N4—Cathode short test—Depress 2-6 together)													
(6N4—Must show short on 1-2-6-7)													
6N5	triode	1	1	6	24	7	■			2	3	■	1-6
"	eye	1	1	0	0	7	■			2-4		■	
(6N5—See instructions for eye test)													
6N6	input	1	2	40	15	7	■			4	5	■	2-7
"	output	1	2	38	9	7	■		4	3	5	■	
6N7	triode-1	1	2	38	7	7	■			3	4	■	2-7
"	triode-2	1	2	38	7	7	■			6	5	■	
6N8	pent.	1	4	14	31	7	■		1	6	2	■	4-5
"	diode-1	3	4	0	23	7	■			7		■	
"	diode-2	3	4	0	23	7	■			8		■	
6P5		1	2	15	17	7	■			3	5	■	2-7
6P7	triode	1	2	41	15	7	■			6	7	■	2-3
"	pent.	1	2	28	27	7	■		5	4	11	■	
6Q4		1	1	35	5	7	■	2-7		3	8	■	1-4
(6Q4—Plate short test—Depress 2-3 together)													
(6Q4—Grid short test—Depress 7-8 together)													
(6Q4—Must show short on 2-3-7-8 individually)													
6Q5		1	2	0	4	7	■			3		■	2-7
6Q7	triode	1	2	13	33	7	■			3	11	■	2-7
"	diode-1	3	2	0	27	7	■			4		■	
"	diode-2	3	2	0	27	7	■			5		■	
6R6		1	2	16	33	7	■		3	5	11	■	2-7
6R7	triode	1	2	18	15	7	■			3	11	■	2-7
"	diode-1	3	2	0	27	7	■			4		■	
"	diode-2	3	2	0	27	7	■			5		■	

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.	
							W	X	Y	Z		
EBC-33	triode	1	2	30	10	7	■			3	11	2-7
"	diode-1	3	2	0	19	7	■			5	■	
"	diode-2	3	2	0	19	7	■			4	■	
EBC-41	triode	4	1	13	10	7	■			2	3	1-8
"	diode-1	3	1	0	22	7	■			5	■	
"	diode-2	3	1	0	22	7	■			6	■	
EBC-81	triode	4	4	11	10	7	■			1	2	4-5
"	diode-1	3	4	0	27	7	■			8	■	
"	diode-2	3	4	0	25	7	■			6	■	
(EBC-81—May show short on 7-9)												
EBC-90	triode	1	3	13	30	7	■			7	1	3-4
"	diode-1	3	3	0	26	7	■			6	■	
"	diode-2	3	3	0	26	7	■			5	■	
EBC-91	triode	1	3	12	32	7	■			7	1	3-4
"	diode-1	3	3	0	27	7	■			6	■	
"	diode-2	3	3	0	27	7	■			5	■	
EBF-15	pent.	4	2	3	10	7	■		6	1	7	2-3
"	diode-1	3	2	0	18	7	■			5	■	
EBF-80	pent.	1	4	14	31	7	■		1	6	2	4-5
"	diode-1	3	4	0	23	7	■			7	■	
"	diode-2	3	4	0	23	7	■			8	■	
EBF-83	pent.	1	4	20	19	7	■		1	6	2	4-5
"	diode-1	3	4	0	21	7	■			7	■	
"	diode-2	3	4	0	21	7	■			8	■	
EBF-89	pent.	1	4	27	17	7	■		1	6	2	4-5
"	diode-1	3	4	0	11	7	■			7	■	
"	diode-2	3	4	0	11	7	■			8	■	
(EBF-89—Diode Section OK above 1/4 on meter scale)												
EC-92	triode	1	3	30	10	7	■			1	6	3-4
EC-97	triode	1	3	13	10	7	■			5	2	3-4
(EC-97—Must show short on 1-7)												
(EC-97—Cathode short test—Depress 1-7 together)												
ECC-33	triode-1	1	7	28	10	7	■			5	4	7-8
"	triode-2	1	7	28	10	7	■			2	1	
ECC-34	triode-1	1	7	25	10	7	■			5	4	7-8
"	triode-2	1	7	25	10	7	■			2	1	
ECC-35	triode-1	1	7	33	10	7	■			5	4	7-8
"	triode-2	1	7	33	10	7	■			2	1	
ECC-40	triode-1	2	1	31	10	7	■			5	6	1-8
"	triode-2	2	1	31	10	7	■			2	3	
ECC-81	triode-1	1	9	32	9	7	■			6	7	4-5-9
"	triode-2	1	9	32	9	7	■			1	2	
ECC-82	triode-1	1	9	27	10	7	■			1	2	4-5-9
"	triode-2	1	9	27	10	7	■			6	7	
ECC-83	triode-1	1	9	8	38	7	■			6	7	4-5-9
"	triode-2	1	9	8	38	7	■			1	2	
ECC-84	triode-1	5	4	9	10	7	■			9	6	4-5
"	triode-2	5	4	9	10	7	■			3	2	
(ECC-84—Must show short on 7-8)												
(ECC-84—Cathode short test, section 1—Depress 7-8 together)												
ECC-85	triode-1	1	5	21	13	7	■			6	7	4-5
"	triode-2	1	5	21	13	7	■			1	2	
ECC-86	triode-1	2	4	10	10	7	■			6	7	4-5
"	triode-2	2	4	10	10	7	■			1	2	
"	diode	3	2	0	19	7	■			4	■	
ECC-88	triode-1	1	4	6	12	7	■			6	7	4-5
"	triode-2	1	4	6	12	7	■			1	2	

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.		
							W	X	Y	Z			
DL-98	.....	Caution:—Lever 6 must be thrown to position "W" BEFORE inserting tube and must remain in position "W" throughout ALL TESTS, INCLUDING SHORT TESTS.											
"	.....	5	2	6	10	2	■	6	1	7	3	■	2-4-5
DM-70	eye	3	4	0	0	2	■	.....	1-8	.....	.....	■	4-5
(DM-70—See instructions for eye test)													
DM-71	eye	3	4	0	0	2	■	.....	1-8	.....	.....	■	4-5
(DM-71—See instructions for eye test)													
DY-80	.....	Caution:—Lever 5-8 must be thrown to position "W" before inserting tube and must remain in position "W" throughout ALL TESTS, INCLUDING SHORT TESTS.											
"	.....	7	2	0	16	2	■	5-8	.....	11	.....	■	†
†(DY-80—Fil. cont.—1-2-4-6-9)													
(DY-80—May show short on 3-7)													
DY-86	.....	7	2	0	14	2	■	5-8	.....	11	.....	■	†
Caution:—Lever 5-8 must be thrown to position "W" before inserting tube and must remain in position "W" throughout all tests including short tests.													
†(DY-86—Fil. Cont.—Must show short on 1-2-4-6-9)													
(DY-86—May show short on 3-7)													
DY-87	.....	Caution:—Lever 5-8 must be thrown to position "W" BEFORE inserting tube and must remain in position "W" throughout ALL TESTS, INCLUDING SHORT TESTS.											
"	.....	7	2	0	14	2	■	5-8	.....	11	.....	■	*
*(DY-87—Fil. Cont.—Must show short on 1-2-4-5-6-8-9)													
E-88-CC	triode-1	1	4	6	12	7	■	.....	6	7	.....	■	4-5
"	triode-2	1	4	6	12	7	■	.....	1	2	.....	■	4-5
E-180-F	.....	1	4	12	16	7	■	.....	9	7	2	■	4-5
(E-180-F—Must show short on 1-3)													
(E-180-F—Cathode short test—depress 1-3 together)													
EAA-11	diode-1	3	2	0	16	7	■	.....	5	.....	.....	■	2-3
"	diode-2	3	2	0	16	7	■	.....	6	.....	.....	■	2-3
(EAA-11—Make special adapter)													
EAA-91	diode-1	3	3	0	17	7	■	.....	7	.....	.....	■	3-4
"	diode-2	3	3	0	17	7	■	.....	2	.....	.....	■	3-4
EAA-901	diode-1	3	3	0	17	7	■	.....	7	.....	.....	■	3-4
"	diode-2	3	3	0	17	7	■	.....	2	.....	.....	■	3-4
EABC-80	triode	4	4	14	10	7	■	.....	9	8	.....	■	4-5
"	diode-1	3	4	0	24	7	■	.....	6	.....	.....	■	4-5
"	diode-2	3	4	0	16	7	■	.....	2	.....	.....	■	4-5
"	diode-3	3	4	0	16	7	■	.....	1	.....	.....	■	4-5
EAC-91	triode	1	3	30	10	7	■	.....	7	6	.....	■	3-4
"	diode	3	3	0	16	7	■	.....	1	.....	.....	■	3-4
*EAF-42	pent.	1	1	8	29	7	■	.....	5	2	6	■	1-8
"	diode	3	1	0	21	7	■	.....	3	.....	.....	■	1-8
EB-41	diode-1	3	1	0	16	7	■	.....	6	.....	.....	■	1-8
"	diode-2	3	1	0	16	7	■	.....	4	.....	.....	■	1-8
EB-91	diode-1	3	3	0	16	7	■	.....	7	.....	.....	■	3-4
"	diode-2	3	3	0	16	7	■	.....	2	.....	.....	■	3-4
EBC-11	triode	1	2	27	10	7	■	.....	6	7	.....	■	3-4
"	diode-1	3	2	0	20	7	■	.....	5	.....	.....	■	3-4
"	diode-2	3	2	0	20	7	■	.....	4	.....	.....	■	3-4

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.	
							W	X	Y	Z		
6R8	triode	1	4	24	14	7	■	.....	9	8	■	4-5
"	diode-1	3	4	0	16	7	■	.....	2	.....	■	4-5
"	diode-2	3	4	0	16	7	■	.....	1	.....	■	4-5
"	diode-3	3	4	0	16	7	■	.....	6	.....	■	4-5
6S2	Caution:—Lever 5-8 must be thrown to position "W" BEFORE inserting tube and must remain in position "W" through ALL TESTS, INCLUDING SHORT TESTS.											
"		7	2	0	14	7	■	5-8	.....	11	■	*
*(6S2—Fil. Cont.—Must show short on 1-2-4-6-9)												
6S7		1	2	26	20	7	■	.....	4	3	11	2-7
6S8	triode	1	7	12	37	7	■	.....	6	11	.....	7-8
"	diode-1	3	7	0	27	7	■	.....	3	.....	■	7-8
"	diode-2	3	7	0	27	7	■	.....	4	.....	■	7-8
"	diode-3	3	7	0	27	7	■	.....	1	.....	■	7-8
(6S8—May show short on 2)												
6SB7	amp.	4	2	9	20	7	■	.....	4	3	8	2-7
"	osc.	1	2	37	6	7	■	.....	4	5	.....	2-7
6SD7		1	2	12	27	7	■	.....	6	8	4	7-8
6SF5		1	7	12	32	7	■	.....	5	3	.....	2-7
6SF7	pent.	1	7	28	18	7	■	.....	4	6	2	7-8
"	diode	3	7	0	27	7	■	.....	5	.....	■	7-8
6SG7		1	2	10	29	7	■	.....	6	8	4	2-7
(6SG7—Must show short on 3-5)												
(6SG7—Cathode short test—Depress 3-5 together)												
6SH7		1	2	14	27	7	■	.....	6	8	4	2-7
(6SH7—Must show short on 3-5)												
(6SH7—Cathode short test—Depress 3-5 together)												
6SS7		1	2	13	30	7	■	.....	6	8	4	2-7
6ST7	triode	1	7	21	15	7	■	.....	6	2	.....	7-8
"	diode-1	3	7	0	27	7	■	.....	5	.....	■	7-8
"	diode-2	3	7	0	27	7	■	.....	4	.....	■	7-8
6SU7	triode-1	1	7	14	30	7	■	.....	2	1	.....	7-8
"	triode-2	1	7	14	30	7	■	.....	5	4	.....	7-8
6SV7	pent.	1	7	12	29	7	■	.....	4	6	2	7-8
"	diode	3	7	0	18	7	■	.....	5	.....	■	7-8
6SZ7	triode	1	7	14	30	7	■	.....	6	2	.....	7-8
"	diode-1	3	7	0	27	7	■	.....	5	.....	■	7-8
"	diode-2	3	7	0	27	7	■	.....	4	.....	■	7-8
6T5	triode	1	1	19	27	7	■	.....	2	3	.....	1-6
"	eye	1	1	0	0	7	■	.....	2-4	.....	■	1-6
(6T5—See instructions for eye test)												
6T7	triode	1	2	20	29	7	■	.....	3	11	.....	2-7
"	diode-1	3	2	0	27	7	■	.....	5	.....	■	2-7
"	diode-2	3	2	0	27	7	■	.....	4	.....	■	2-7
6U4		1	7	0	4	7	■	.....	5	.....	■	7-8
6U5	triode	1	1	19	27	7	■	.....	2	3	.....	1-6
"	eye	1	1	0	0	7	■	.....	2-4	.....	■	1-6
(6U5—See instructions for eye test)												
6U6		1	2	13	7	7	■	.....	4	3	5	2-7
6U7		1	2	27	19	7	■	.....	4	3	11	2-7
6V7	triode	1	2	25	12	7	■	.....	3	11	.....	2-7
"	diode-1	3	2	0	26	7	■	.....	4	.....	■	2-7
"	diode-2	3	2	0	26	7	■	.....	5	.....	■	2-7

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.		
							W	X	Y	Z			
6W7		1	2	18	28	7	■		4	3	11	■	2-7
6X2		1	2	0	21	7	■			11			1-2
(6X2—Connect 2 bottom leads to contacts 1 and 2 of octal socket. Top lead connect to grid cap.)													
6Y5	plate-1	2	2	0	3	7	■			3			2-7
"	plate-2	2	2	0	3	7	■			5			
6Y6		1	2	14	6	7	■		4	3	5		2-7
6Y7	triode-1	1	2	33	9	7	■			3	4		2-7
"	triode-2	1	2	33	9	7	■			6	5		
6Z3		2	1	0	3	7	■			2			1-4
6Z4	plate-1	2	1	0	4	7	■			2			1-5
"	plate-2	2	1	0	4	7	■			3			
6Z5	plate-1	2	1	0	3	7	■			3			1-2-6
"	plate-2	2	1	0	3	7	■			5			
6Z6	plate-1	3	2	0	4	7	■			3			2-7
"	plate-2	3	2	0	4	7	■			5			
6Z7	triode-1	1	2	33	11	7	■			3	4		2-7
"	triode-2	1	2	33	11	7	■			6	5		
6ZY5	plate-1	2	2	0	4	7	■			3			2-7
"	plate-2	2	2	0	4	7	■			5			
7A4		1	1	27	10	7	■			2	6		1-8
7A5		1	1	12	8	7	■		3	2	6		1-8
7A6	diode-1	3	1	0	19	7	■			3			1-8
"	diode-2	3	1	0	19	7	■			6			
7A7		1	1	25	20	7	■		3	2	6		1-8
7A8	amp.	4	1	40	20	7	■		6	2	6		1-8
"	osc.	1	1	26	47	7	■			3	4		
7AD7		1	1	8	21	7	■			3	2	6	1-8
7AF7	triode-1	1	1	16	16	7	■				3	4	1-8
"	triode-2	1	1	15	15	7	■				6	5	
7AG7		1	1	17	26	7	■		3	2	6		1-8
7AH7		1	1	19	25	7	■			3	2	6	1-8
7AJ7		1	1	11	30	7	■			3	2	6	1-8
7AK7		1	1	5	19	7	■			3	2	6	1-8
7AN7	triode-1	5	4	10	10	8	■				9	6	4-5
"	triode-2	5	4	10	10	8	■				3	2	
(7AN7—Must show short on 7-8)													
(7AN7—Cathode short test, section 1, Depress 7-8 together)													
7B4		1	1	12	33	7	■			2	6		1-8
7B5		1	1	31	11	7	■		3	2	6		1-8
7B6	triode	1	1	14	35	7	■			2	3		1-8
"	diode-1	3	1	0	27	7	■			5			
"	diode-2	3	1	0	27	7	■			6			
(7B6—Must show short on 4-7)													
(7B6—Cathode short test—depress 4-7 together)													
7B7		1	1	27	20	7	■		3	2	6		1-8
7B8	amp.	4	1	29	24	7	■		5	2	6		1-8
"	osc.	1	1	29	30	7	■			3	4		
7C4		3	1	0	21	7	■			4			1-8
7C5		1	1	31	9	7	■		3	2	6		1-8
7C6	triode	1	1	22	33	7	■			2	3		1-8
"	diode-1	3	1	0	26	7	■			6			
"	diode-2	3	1	0	26	7	■			6			
(7C6—Must show short on 4-7)													
(7C6—Cathode short test—depress 4-7 together)													
7C7		1	1	25	22	7	■		3	2	6		1-8

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.	
							W	X	Y	Z		
AZ-41	plate-1	2	7	0	8	5Z	■	5		6	■	7-8
"	plate-2	2	8	0	8	5Z	■	1		2		
(AZ-41—Set switch "E" to No. 5 if there is no 5Z position)												
(AZ-41—Must show short on 1-2-3-4-5-6)												
DA-90		3	1	0	27	2	■	2-5		6	■	1-7
(DA-90—Must show short on 2-5-6)												
(DA-90—Plate short test—Depress 2-6 together)												
DAC-32	triode	5	2	12	46	2	■			3	11	2-7
"	diode	3	2	0	27	2	■			5		
DAF-91	pent.	1	1	26	35	2	■		4	6	6	1-7
"	diode	3	1	0	29	2	■			3		
DAF-96	pent.	4	7	17	41	2	■		4	5	6	1-7
"	diode	3	7	0	28	2	■			5		
DC-90		5	7	21	14	2	■	2-5		3	6	1-7
(DC-90—Must show short on 2-3-5-6)												
(DC-90—Grid short test—throw 5-6 together)												
(DC-90—Plate short test—throw 2-3 together)												
DC-96		5	1	35	10	2	■	2-6		3	6	1-7
(DC-96—Must show short on 2-3-5-6)												
(DC-96—Plate short test—Depress 2-3 together)												
(DC-96—Grid short test—Depress 5-6 together)												
DCC-90	triode-1	1	4	20	14	2	■			2	3	1-4-7
"	triode-2	1	4	20	14	2	■			6	5	
DF-11		4	2	13	20	2	■		6	5	7	2-3
(DF-11—Must show short on 8)												
DF-33		1	2	26	40	2	■		4	3	11	2-7
DF-91		1	7	32	22	2	■	5	3	2	6	1-5-7
DF-92		1	7	27	29	2	■	6	3	2	6	1-5-7
DF-96		5	7	18	33	2	■		3	2	6	1-6-7
DF-97		5	7	18	33	2	■		3	2	6	1-6-7
DF-904		1	7	27	32	2	■	5	3	2	6	1-5-7
"	amp.	4	2	25	29	2	■		4	3	11	2-7
DK-91	osc.	2	2	14	36	2	■			4-6	5	
"	amp.	4	7	9	39	2	■	5	3	2	6	1-5-7
"	osc.	2	7	10	39	2	■	6		3	4	
DK-92	amp.	1	7	50	31	2	■		6	2	3-4	1-7
"	osc.	1	7	36	10	2	■		5	3	4	
DK-96	amp.	5	7	27	40	2	■		6	2	3-4	1-7
"	osc.	5	7	13	19	2	■			3	4	
DL-11		4	2	13	10	2	■		6	5	7	2-3
(DL-11—Must show short on 8)												
DL-33		1	8	26	12	2	■		4	3	5	2-7-8
DL-35		1	2	27	13	2	■		4	3	5	2-7
DL-41		5	1	12	10	2	■		5	2	6	1-7-8
(DL-41—May show short on 3)												
DL-92		1	5	27	14	2	■	6	4	2	3	1-5-7
(DL-92—Must show short on 2-6)												
(DL-92—Plate short test—depress 2-6 together)												
DL-94		1	5	27	15	2	■		3	2	6	1-5-7
DL-96		1	5	30	10	2	■		3	2	6	1-5-7

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.
							W	X	Y	Z	
7716	triode	5	4	26	10	10	■	8	3	2	4-5
"	pentode	1	4	17	10	10	■	8	9	7	■
7728	triode-1	1	9	32	9	7	■	1	6	7	4-5-9
"	triode-2	1	9	32	9	7	■	1	2	■	■
7729	triode-1	1	9	12	32	7	■	1	6	7	4-5-9
"	triode-2	1	9	12	32	7	■	1	2	■	■
7730	triode-1	1	9	27	10	7	■	1	6	7	4-5-9
"	triode-2	1	9	27	10	7	■	1	2	■	■
7731	triode	1	4	28	8	7	■	3	1	9	4-5
"	pen	1	4	14	29	7	■	3	6	2	■
7733		1	6	16	12	7	■	8	7	2	4-6-6
(7733—Must show short on 3-9)											
(7733—Suppressor short test—Depress 3-9 together)											
7754		1	4	5	6	7	■	1	9	6	4-5
8016	(Same as 1B3)										
9001		1	3	16	33	7	■	6	5	1	3-4
(9001—Must show short on 2-7)											
(9001—Cathode short test—Depress 2-7 together)											
9002		1	3	26	12	7	■	1	5	6	3-4
(9002—Plate short test—Depress 1-5 together)											
(9002—Cathode short test—Depress 2-7 together)											
(9002—Must show short on 1-2-5-7 individually)											
9003		1	3	31	15	7	■	6	5	1	3-4
(9003—Must show short on 2-7)											
(9003—Cathode short test—Depress 2-7 together)											
9004		3	1	0	17	7	■	2	■	■	1-4
9005		3	1	0	17	5	■	3	■	■	1-4-5
9006		3	3	0	20	7	■	1	5	■	3-4
(9006—Plate short test—Depress 1-5 together)											
(9006—Cathode short test—Depress 2-7 together)											
(9006—Must show short on 1-2-5-7 individually)											
PJ-8		1	1	26	16	6	■	2	3	■	1-4
XXB	triode-1	3	7	22	24	2	■	6	5	■	1-7-8
"	triode-2	3	7	22	24	2	■	3	4	■	■
XXD	triode-1	1	1	15	16	10	■	6	5	■	1-8
"	triode-2	1	1	15	15	10	■	3	4	■	■
XXFM	triode	1	1	13	45	7	■	2	3	■	1-8
"	diode-1	3	1	0	26	7	■	5	■	■	■
"	diode-2	3	1	0	26	7	■	6	■	■	■
XXL	diode-2	1	1	23	10	7	■	2	6	■	1-8

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.
							W	X	Y	Z	
7E5		1	2	36	7	7	■	3-6	7	1	2-8
(7E5—Plate short test—depress 3-7 together)											
(7E5—Grid short test—depress 1-6 together)											
(7E5—Cathode short test—depress 4-6 together)											
(7E5—Must show short on 1-3-4-5-6-7 individually)											
7E6	triode	1	1	18	16	7	■	2	3	■	1-8
"	diode-1	3	1	0	27	7	■	5	■	■	■
"	diode-2	3	1	0	27	7	■	6	■	■	■
(7E6—Must show short on 4-7)											
(7E6—Cathode short test—depress 4-7 together)											
7E7	pent.	1	1	26	25	7	■	5	2	6	1-8
"	diode-1	3	1	0	27	7	■	3	■	■	■
"	diode-2	3	1	0	27	7	■	4	■	■	■
7F7	triode-1	1	1	16	30	7	■	3	4	■	1-8
"	triode-2	1	1	16	30	7	■	5	■	■	■
7F8	triode-1	1	2	13	14	7	■	3	1	■	2-7
"	triode-2	1	2	13	14	7	■	6	8	■	■
7G7		1	1	11	23	7	■	3	2	6	1-8
7G8	sect.-1	1	1	27	14	7	■	3	7	6	1-8
"	sect.-2	1	1	27	14	7	■	3	2	4	■
7H7		1	1	18	22	7	■	3	2	6	1-8
7J7	hexode	1	1	22	34	7	■	5	2	6	1-8
"	triode	1	1	22	19	7	■	3	4	■	■
7K7	triode	1	1	16	30	7	■	3	4	■	1-8
"	diode-1	3	1	0	27	7	■	5	■	■	■
"	diode-2	3	1	0	27	7	■	6	■	■	■
7L7		1	1	12	30	7	■	3	2	6	1-8
7N7	triode-1	1	1	27	10	7	■	3	4	■	1-8
"	triode-2	1	1	27	10	7	■	6	5	■	■
7Q7	amp.	4	1	8	29	7	■	3	2	6	1-8
"	osc.	1	1	21	9	7	■	3	4	■	■
7R7	pent.	1	1	17	26	7	■	5	2	6	1-8
"	diode-1	3	1	0	26	7	■	3	■	■	■
"	diode-2	3	1	0	26	7	■	4	■	■	■
7S7	heptode	1	1	13	34	7	■	6	2	6	1-8
"	triode	1	1	28	14	7	■	3	4	■	■
7T7		1	1	14	27	7	■	3	2	6	1-8
7V7		1	1	12	24	7	■	3	2	6	1-8
7W7		1	1	12	24	7	■	3	2	6	1-8
(7W7—Must show short on 4-7)											
(7W7—Cathode short test—depress 4-7 together)											
7X6	plate-1	1	1	0	6	7	■	3	■	■	1-8
"	plate-2	1	1	0	5	7	■	6	■	■	■
7X7	triode	1	1	13	45	7	■	2	3	■	1-8
"	diode-1	3	1	0	25	7	■	6	■	■	■
"	diode-2	3	1	0	26	7	■	3	■	■	■
7Y4	plate-1	2	1	0	4	7	■	3	■	■	1-8
"	plate-2	2	1	0	4	7	■	6	■	■	■
7Z4	plate-1	2	1	0	7	7	■	3	■	■	1-8
"	plate-2	2	1	0	7	7	■	6	■	■	■
9A8	triode	5	4	12	10	8	■	1	9	■	4-5
"	pent.	1	4	18	19	8	■	3	6	2	■
9AK8	triode	4	4	10	10	9	■	9	8	■	4-5
"	diode-1	3	4	0	23	9	■	6	■	■	■
"	diode-2	3	4	0	16	9	■	2	■	■	■
"	diode-3	3	4	0	16	9	■	1	■	■	■
10	diode-1	1	1	32	10	8	■	2	3	■	1-4

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.	
							W	X	Y	Z		
11C5		1	3	13	7	10	■	2	6	7	5	■ 3-4
		(11C5—Must show short on 2-5)										
		(11C5—Grid short test—Depress 2-5 together)										
12A		1	1	23	10	6	■		2	3	■ 1-4	
12A4		1	3	25	6	7	■	2	9	7	■ 3-4-5	
		(12A4—Must show short on 2-7)										
		(12A4—Grid short test—Depress 2-7 together)										
12A5		1	6	28	8	7	■	3	2	4	■ 1-6-7	
12A6		1	2	31	11	10	■	4	3	5	■ 2-7	
12A7	pent.	1	1	34	12	10	■	3	2	11	■ 1-7	
	rect.	2	1	0	3	10	■		4			
12A8	amp.	4	2	29	24	10	■	4	3	11	■ 2-7	
	osc.	1	2	33	28	10	■		6	5		
12AV5		1	2	9	6	10	■	8	5	1	■ 2-7	
12AW6		1	3	9	33	10	■	6	5	1	■ 3-4	
12AY7	triode-1	1	9	24	20	7	■	6	7		■ 4-5-9	
"	triode-2	1	9	24	20	7	■		1	2		
12B7		1	1	25	20	10	■	3	2	6	■ 1-8	
12B8	triode	1	2	14	25	10	■		5	8	■ 2-7	
	pent.	1	2	29	12	10	■	4	3	11		
12BA7	amp.	4	4	10	21	10	■	1	9	7	■ 4-5	
"	osc.	1	4	32	6	10	■		1	2		
12BZ7	triode-1	1	9	7	25	7	■		6	7	■ 4-5-9	
"	triode-2	1	9	7	25	7	■		1	2		
12C8	pent.	1	2	17	34	10	■	6	3	11	■ 2-7	
"	diode-1	3	2	0	27	10	■		4			
"	diode-2	3	2	0	27	10	■		5			
12DQ5		1	2	0	5	10	■	1-4	8	11	5	■ 2-7
		(12DQ5—Must show short on 1-3-4-5-6-8)										
		(12DQ5—Grid short test—Depress 1-5 together)										
		(12DQ5—Screen short test—Depress 4-8 together)										
		(12DQ5—Cathode short test—Depress 3-6 together)										
12DW5		2	4	0	10	10	■	3	1	9	6	■ 4-5
		(12DW5—Must show short on 3-6)										
		(12DW5—Grid short test—Depress 3-6 together)										
12E5		1	2	15	17	10	■		3	5	■ 2-7	
12F5		1	2	12	33	10	■		4	11	■ 2-7	
12G4		1	3	14	15	10	■	1		5	6	■ 3-4
		(12G4—Must show short on 1-5)										
		(12G4—Plate short test—Depress 1-5 together)										
12H4		1	2	14	15	7	■	1		5	6	■ 2-3-4
		(12H4—Must show short on 1-5)										
		(12H4—Plate short test—Depress 1-5 together)										
12H6	diode-1	3	2	0	18	10	■		3		■ 2-7	
"	diode-2	3	2	0	18	10	■		5			
12J5		1	2	15	15	10	■		3	5	■ 2-7	
12J7		1	2	15	35	10	■	4	3	11	■ 2-7	
12J8	tetrode	2	4	5	6	10	■	3	6	1	■ 4-5	
"	diode-1	3	4	0	17	10	■		9			
"	diode-2	3	4	0	17	10	■		8			
12K5		2	3	43	11	10	■	5		7	6	■ 3-4
		(12K5—Must show short on 5-6)										
		(12K5—Grid short test—Depress 5-6 together)										
12K7		1	2	15	33	10	■		4	3	11	■ 2-7

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.	
							W	X	Y	Z		
7056		1	4	8	30	10	■	6	5	1	■ 3-4	
7057	triode-1	5	4	13	10	10	■		6	7	■ 4-5	
"	triode-2	5	4	16	10	10	■		1	2		
7058	triode-1	1	4	12	32	10	■		6	7	■ 4-5	
"	triode-2	1	4	12	32	10	■		1	2		
7059	triode	1	4	28	8	10	■			1	9	■ 4-5
"	pent.	1	4	14	29	10	■	3	5	2	■	
7060	triode	2	4	15	25	10	■		7	1	2	■ 4-5
"	pent.	2	4	8	24	10	■		7	6	8	
7061		1	4	10	19	10	■	1-3	8	9	6	■ 4-5
(7061—Must show short on 1-3-6-8)												
(7061—Grid short test—Depress 3-6 together)												
(7061—Screen short test—Depress 1-8 together)												
7167		2	3	11	20	10	■	6	5	1	■ 3-4	
(7167—Must show short on 2-7)												
(7167—Cathode short test—Depress 2-7 together)												
7189		1	4	16	10	7	■	1-6-8	9	7	2	■ 4-5
(7189—May show short on 1-2-6-8)												
(7189—Grid short test—Depress 1-2 together)												
7199	triode	1	4	21	10	7	■			1	9	■ 4-5
"	pent.	1	4	16	25	7	■	3	2	7		
7247	triode-1	1	9	33	10	7	■		6	7		■ 4-5-9
"	triode-2	1	9	27	10	7	■		1	2		
7258	triode	5	4	10	13	10	■		1	2		■ 4-5
"	pent.	4	4	6	10	10	■	7	6	6		
7355		1	2	6	10	7	■		8	3	6	■ 2-7
7370	triode-1	2	8	18	10	11	■		9	7		■ 4-5-8
"	triode-2	2	8	18	10	11	■		1	2		
7408		1	2	31	9	7	■		4	3	5	■ 2-7
7551		1	4	15	10	10	■	3	8	6	2	■ 4-5
(7551—Must show short on 1-3-8-9)												
(7551—Cathode short test—Depress 1-9 together)												
(7551—Screen short test—Depress 3-8 together)												
755R		1	4	14	10	7	■	3	8	6	2	■ 4-5
(755R—Must show short on 1-3-8-9)												
(755R—Cathode short test—Depress 1-9 together)												
(755R—Screen short test—Depress 3-8 together)												
7581		1	2	24	10	6	■	4	3	5	■ 2-7	
7586		2	4	18	10	7	■		1	2	■ 4-5	
(7586—Use red grid cap)												
7587		3	4	0	22	7	■		1	12	2	■ 4-5
(7587—Red grip cap goes to top of tube)												
7591		1	2	16	10	7	■	4	8	3	6	■ 2-7
(7591—Must show short on 4-8)												
(7591—Screen short test—Depress 4-8 together)												
7687	triode	5	4	16	10	7	■			1	9	■ 4-5
"	pen	4	4	9	10	7	■		3	6	2	■
7695		1	4	0	6	14	■		1	9	6	■ 4-5
(7695—Fil. Cont.—Set control "E" at 12)												
7701		1	4	33	10	10	■	7	9	6	2	■ 4-5
(7701—Must show short on 1-3-7-8-9)												
(7701—Cathode short test—Depress 1-3-8 together)												
(7701—Screen short test—Depress 7-9 together)												

Tube	Section	A	B	C	D	E	Lever				W	X	Y	Z	Fil. Cont.
6417		1	4	27	10	10	■	8	6	1	9	■			4-5
		(6417—Grid short test—Depress 8-9 together)													
		(6417—Must show short on 8-9)													
6463	triode-1	1	9	26	8	7	■						6	8	4-5-9
"	triode-2	1	9	26	9	7	■						1	2	
6485		1	3	8	25	7	■					6	5	1	3-4
6550		1	2	9	9	7	■					4	3	5	2-7
6660		1	3	28	15	7	■					6	5	1	3-4
6661		1	3	26	20	7	■					6	5	1	3-4
6662		1	3	17	20	7	■					6	5	1	3-4
6663	diode-1	3	3	0	17	7	■						7		3-4
"	diode-2	3	3	0	17	7	■						2		
6669		1	3	32	8	7	■	1	6	5	7	■			3-4
		(6669—Must show short on 1-7)													
		(6669—Grid short test—depress 1-7 together)													
6677		1	4	11	12	7	■	2-3	8	6	9	■			4-5
		(6677—Must show short on 2-3-8-9)													
		(6677—Screen short test—depress 3-8 together)													
		(6677—Grid short test—depress 2-9 together)													
6678	triode	1	4	28	8	7	■						1	9	4-5
"	pent.	1	4	14	29	7	■				3	6	2		
6679	triode-1	1	9	32	9	7	■						6	7	4-5-9
"	triode-2	1	9	32	9	7	■						1	2	
6680	triode-1	1	9	27	10	7	■						1	2	4-5-9
"	triode-2	1	9	27	10	7	■						6	7	
6681	triode-1	1	9	8	38	7	■						6	7	4-5-9
"	triode-2	1	9	8	38	7	■						1	2	
6688		1	4	12	16	7	■				9	7	2		4-5
		(6688—Must show short on 1-3)													
		(6688—Cathode short test—depress 1-3 together)													
6829	triode-1	1	9	24	10	7	■						6	7	4-5-9
"	triode-2	1	9	24	10	7	■						1	2	
6883		1	2	0	7	10	■					3	11	5	2-7
		(6883—Must show short on 1-4-6)													
		(6883—Cathode short test—Depress 1-4-6 together)													
6919	diode-1	3	3	0	17	7	■						7		3-4
"	diode-2	3	3	0	17	7	■						2		
6922	triode-1	1	4	6	12	7	■						6	7	4-5
"	triode-2	1	4	6	12	7	■						1	2	
6973		1	4	18	13	7	■	1-3	8	9	6	■			4-5
		(6973—Must show short on 1-3-6-8)													
		(6973—Grid short test—Depress 3-6 together)													
		(6973—Screen short test—Depress 1-8 together)													
7025	triode-1	1	9	8	38	7	■						6	7	4-5-9
"	triode-2	1	9	8	38	7	■						1	2	
7027		1	2	13	12	7	■	1-5	4	3	6	■			2-7
		(7027—Must show short on 1-4-5-6)													
		(7027—Screen short test—Depress 1-4 together)													
		(7027—Grid short test—Depress 5-6 together)													
7036	amp.	4	3	6	25	7	■					6	5	7	3-4
"	osc.	1	3	25	8	7	■						6	1	
7054		1	4	16	12	10	■					8	7	2	4-5
		(7054—Must show short on 3-9)													
7055	diode-1	3	3	0	17	10	■						7		4-5
"	diode-2	3	3	0	17	10	■						2		

Tube	Section	A	B	C	D	E	Lever					W	X	Y	Z	Fil. Cont.	
12K8	triode	1	2	28	15	10	■									2-7	
"	hexode	4	2	15	32	10	■					4	3	11	■		
12Q7	triode	1	2	13	33	10	■						3	11	■	2-7	
"	diode-1	3	2	0	27	10	■						4	■	■		
"	diode-2	3	2	0	27	10	■						5	■	■		
12S8	triode	1	7	12	37	10	■						6	11	■	7-8	
"	diode-1	3	7	0	27	10	■						3	■	■		
"	diode-2	3	7	0	27	10	■						4	■	■		
"	diode-3	3	7	0	27	10	■						1	■	■		
(12S8—May show short on 2)																	
12SC7	triode-1	1	7	24	27	10	■						2	3	■	7-8	
"	triode-2	1	7	24	27	10	■						5	4	■		
12SF5		1	7	12	32	10	■						5	3	■	7-8	
12SF7	pent.	1	7	28	18	10	■					4	6	2	■	7-8	
"	diode	3	7	0	27	10	■						5	■	■		
12SG7		1	2	10	29	10	■						6	8	4	2-7	
(12SG7—Must show short on 3-5)																	
(12SG7—Cathode short test—Depress 3-5 together)																	
12SH7		1	2	14	27	10	■						6	8	4	■	2-7
(12SH7—Must show short on 3-5)																	
(12SH7—Cathode short test—Depress 3-5 together)																	
12SW7	triode	1	7	21	15	10	■						6	2	■	7-8	
"	diode-1	3	7	0	27	10	■						5	■	■		
"	diode-2	3	7	0	27	10	■						4	■	■		
12U7	triode-1	2	9	27	16	7	■						6	7	■	4-5-9	
"	triode-2	2	9	27	16	7	■						1	2	■		
12Z3		2	1	0	1	10	■						2	■	■	1-4	
12Z5	plate-1	2	4	0	3	7	■						2	■	■	1-4-7	
"	plate-2	2	4	0	3	7	■						6	■	■		
14A4		1	1	27	10	10	■							2	6	1-8	
14A5		1	1	31	11	10	■						3	2	6	1-8	
14A7		1	1	25	20	10	■						3	2	6	1-8	
14B6	triode	1	1	12	39	10	■							2	3	1-8	
"	diode-1	3	1	0	26	10	■							5	■		
"	diode-2	3	1	0	26	10	■							6	■		
(14B6—Must show short on 4-7)																	
(14B6—Cathode short test—depress 4-7 together)																	
14B8	amp.	4	1	29	24	10	■						5	2	6	■	1-8
"	osc.	1	1	29	30	10	■							3	4	■	
14C5		1	1	31	9	10	■						3	2	6	■	1-8
14C7		1	1	21	25	10	■							3	2	6	1-8
14E6	triode	1	1	16	18	10	■							2	3	■	1-8
"	diode-1	3	1	0	27	10	■							5	■		
"	diode-2	3	1	0	27	10	■							6	■		
(14E6—Must show short on 4-7)																	
(14E6—Cathode short test—depress 4-7 together)																	
14E7	pent.	1	1	26	25	10	■						5	2	6	■	1-8
"	diode-1	3	1	0	27	10	■							3	■		
"	diode-2	3	1	0	27	10	■							4	■		
14F7	triode-1	1	1	16	30	10	■							6	5	■	1-8
"	triode-2	1	1	16	30	10	■							3	4	■	
14F8	triode-1	1	2	13	14	10	■							6	8	■	2-7
"	triode-2	1	2	13	14	10	■							3	1	■	
14H7		1	1	18	22	10	■						3	2	6	■	1-8
14J7	triode	1	1	20	18	10	■							3	4	■	1-8
"	hexode	1	1	22	34	10	■						5	2	6	■	
14N7	triode-1	1	1	27	10	10	■							3	4	■	1-8
"	triode-2	1	1	27	10	10	■							6	5	■	

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.
							W	X	Y	Z	
14Q7	amp.	4	1	8	29	10	■	3	2	6	1-8
"	osc.	1	1	21	19	10	■	5	3	4	1-8
14R7	pent.	1	1	17	26	10	■	5	2	6	1-8
"	diode-1	3	1	0	26	10	■		3		
"	diode-2	3	1	0	26	10	■		4		
14S7	triode	1	1	28	14	10	■		3	4	1-8
"	heptode	1	1	13	34	10	■	5	2	6	1-8
14W7		1	1	12	26	10	■	3	2	6	1-8
(14W7—Must show short on 4-7)											
(14W7—Cathode short test—depress 4-7 together)											
14X7	triode	1	1	13	45	10	■		2	3	1-8
"	diode-1	3	1	0	26	10	■		5		
"	diode-2	3	1	0	26	10	■		6		
14Y4	plate-1	2	1	0	3	10	■		3		1-8
"	plate-2	2	1	0	3	10	■		5		
15		1	1	24	37	3	■	3	2	11	1-5
17		1	1	27	11	10	■		2	3	1-5
18		1	1	35	10	10	■	3	2	4	1-6
18A5		1	2	5	7	11	■	8	5	1	2-7
19	triode-1	1	1	20	23	3	■		2	3	1-6
"	triode-2	1	1	20	23	3	■		5	4	
20		1	1	29	13	5	■		2	3	1-4
22		1	1	33	25	5	■	3	2	11	1-4
24		1	1	26	25	4	■	3	2	11	1-5
25A6		1	2	31	7	12	■	4	3	5	2-7
25A7	pent.	1	2	28	9	12	■	4	3	5	2-7
"	rect.	2	2	0	2	12	■		6		
25AC5		1	2	25	16	12	■		3	5	2-7
25B5	input	1	1	36	9	12	■		3	4	1-6
"	output	1	1	34	6	12	■	3	2	4	
25B6		1	2	14	5	12	■	4	3	5	2-7
25C6		1	2	14	6	12	■	4	3	5	2-7
25D8	triode	4	2	6	23	12	■	4	3	11	2-7
"	pent	1	2	29	15	12	■		6	8	
"	diode	3	2	0	26	12	■		8		
25F5		1	3	16	7	12	■	2	6	7	3-4
(25F5—Must show short on 2-5)											
(25F5—Grid short test—depress 2-5 together)											
25L6		1	2	10	6	12	■	4	3	5	2-7
25N6	input	1	2	36	9	12	■		4	5	2-7
"	output	1	2	34	6	12	■	4	3	5	
25X6	plate-1	2	2	0	2	12	■		3		2-7
"	plate-2	2	2	0	2	12	■		5		
25Y4		2	2	0	1	12	■		5		2-7
25Y5	plate-1	2	1	0	4	12	■		5		1-6
"	plate-2	2	1	0	4	12	■		2		
25Z3		2	1	0	1	12	■		2		1-4
25Z4		2	2	0	2	12	■		5		1-7
25Z5	plate-1	2	1	0	2	12	■		5		1-6
"	plate-2	2	1	0	2	12	■		2		
25Z6		2	2	0	2	12	■		3		2-7
"	plate-2	2	2	0	2	12	■		3		
26		1	1	19	18	2	■		2	3	1-4
26A6		1	3	24	18	12	■	6	5	1	3-4
26A7	pent-1	2	6	15	4	12	■	5	8	1	6-7
"	pent-2	2	6	15	4	12	■	5	4	3	
26C6	triode	1	3	18	15	12	■		7	1	3-4
"	diode-1	3	3	0	27	12	■		6		
"	diode-2	3	3	0	27	12	■		5		
26D6	amp.	4	3	11	28	12	■	6	5	7	3-4
"	osc.	1	3	24	9	12	■		6	1	

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.		
							W	X	Y	Z			
6136		1	3	13	27	7	■	6	5	1	■	3-4	
6137		1	2	25	20	7	■	6	8	4	■	2-7	
6146		1	2	0	7	7	■	3	11	5	■	2-7	
(6146—Must show short on 1-4-6)													
(6146—Cathode short test—Depress 1-4-6 together)													
6159		1	2	7	6	12	■	3	11	5	■	2-7	
(6159—Must show short on 1-4-6)													
(6159—Cathode short test—Depress 1-4-6 together)													
6187		1	3	11	32	7	■	6	5	1	■	3-4	
6188	triode-1	1	7	14	30	7	■		2	1	■	7-8	
"	triode-2	1	7	14	30	7	■		5	4	■		
6189	triode-1	1	9	27	10	7	■		1	2	■	4-5-9	
"	triode-2	1	9	27	10	7	■		6	7	■		
6197		1	4	11	12	7	■	2-3	8	6	9	■	4-5
(6197—Must show short on 2-3-8-9)													
(6197—Screen short test—Depress 3-8 together)													
(6197—Grid short test—Depress 2-9 together)													
6201	triode-1	1	9	32	9	7	■		6	7	■	4-5-9	
"	triode-2	1	9	32	9	7	■		1	2	■		
6202	plate-1	2	3	0	5	7	■		6		■	3-4	
"	plate-2	2	3	0	5	7	■		1		■		
6203	diode-1	3	4	0	18	7	■		9		■	4-5	
"	diode-2	3	4	0	18	7	■		1		■		
6205		1	3	10	25	7	■	7	5	1	■	3-6	
(6205—Must show short on 2-8)													
(6205—Cathode short test—Depress 2-8 together)													
6206		1	3	11	25	7	■	7	5	1	■	3-6	
(6206—Must show short on 2-8)													
(6206—Cathode short test—Depress 2-8 together)													
6211	triode-1	1	9	20	11	7	■		6	7	■	4-5-9	
"	triode-2	1	9	20	11	7	■		1	2	■		
6216		1	4	3	10	7	■	1	7	6	2	■	4-5
(6216—Must show short on 1-3-6-8)													
(6216—Grid short test—Depress 1-6 together)													
(6216—Cathode short test—Depress 3-8 together)													
6265		1	3	20	27	7	■	6	5	1	■	3-4	
6267		1	4	17	30	7	■	1	6	9	■	4-5	
(6267—Must show short on 2-7)													
6336	triode-1	1	7	0	4	7	■		5	4	■	7-8	
"	triode-2	1	7	0	4	7	■		2	1	■		
6336A	triode-1	5	7	0	7	7	■		5	4	■	7-8	
"	triode-2	5	7	0	7	7	■		2	1	■		
6350	triode-1	1	9	10	11	7	■		6	8	■	4-5-9	
"	triode-2	1	9	10	11	7	■		1	3	■		
6360	tetrode-1	1	9	29	12	7	■	7	8	3	■	4-5-9	
"	tetrode-2	1	9	29	12	7	■	7	6	1	■		
6386	triode-1	1	1	20	10	7	■		6	7	■	1-9	
"	triode-2	1	1	20	10	7	■		4	3	■		
(6386—May show short on 5)													
6394	triode-1	1	7	15	4	12	■		5	4	■	7-8	
"	triode-2	1	7	15	4	12	■		2	1	■		
CK-6397		4	5	4	10	2	■	6	3	8	■	1-5-7	

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.
							W	X	Y	Z	
5842		1	3	14	7	7	■	5-7-8	1	4	3-9
(5842—Must show short on 4-5-7-8)											
(5842—Grid short test—Depress 4-5-7-8 together)											
5847		1	3	16	10	7	■	8	6	1	3-9
CK-5854		3	3	11	29	2	■	1	2	4	3-5
5879		1	4	20	35	7	■	7	6	1	4-5
5881		1	2	21	9	7	■	4	3	5	2-7
5899		5	3	8	14	7	■	7	5	1	3-6
(5899—Must show short on 2-4-8)											
(5899—Cathode short test—Depress 2-4-8 together)											
5902A		5	3	11	9	7	■	7	5	1	3-6
(5902A—Must show short on 2-4-8)											
(5902A—Cathode short test—Depress 2-4-8 together)											
5915	amp.	4	3	6	25	7	■	6	5	7	3-4
"	osc.	1	3	25	8	7	■	6	1	■	■
5931	plate-1	2	2	0	5	6	■	4	■	■	2-8
"	plate-2	2	2	0	5	6	■	4	■	■	■
5932		1	2	24	9	7	■	4	3	5	2-7
5933		1	1	27	11	7	■	2	11	3	1-5
5963	triode-1	1	9	27	10	7	■	1	2	■	4-5-9
"	triode-2	1	9	27	10	7	■	6	7	■	■
5964	triode-1	1	3	21	11	7	■	2	5	■	3-4
"	triode-2	1	3	21	11	7	■	1	6	■	■
5965	triode-1	1	9	25	9	7	■	6	7	■	4-5-9
"	triode-2	1	9	25	9	7	■	1	2	■	■
6005		1	3	32	8	7	■	1	6	5	3-4
(6005—Must show short on 1-7)											
(6005—Grid short test—Depress 1-7 together)											
6021	triode-1	1	3	16	14	7	■	8	7	■	3-6
"	triode-2	1	3	16	14	7	■	1	2	■	■
6028		1	3	10	24	11	■	6	5	1	3-4
(6028—Must show short on 2-7)											
(6028—Cathode short test—Depress 2-7 together)											
6029		5	2	10	14	2	■	1	3	■	2-4
6046		1	2	10	6	12	■	4	3	5	2-7
6072	triode-1	1	9	24	20	7	■	6	7	■	4-5-9
"	triode-2	1	9	24	20	7	■	1	2	■	■
6080	triode-1	1	7	25	5	7	■	5	4	■	7-8
"	triode-2	1	7	25	5	7	■	2	1	■	■
6087	plate-1	2	2	0	8	6	■	4	■	■	2-8
"	plate-2	2	2	0	8	6	■	4	■	■	■
6088		5	3	7	29	2	■	2	1	4	3-5
6096		1	3	22	16	7	■	6	5	1	3-4
(6096—Must show short on 2-7)											
(6096—Cathode short test—Depress 2-7 together)											
6097	diode-1	3	3	0	17	7	■	7	■	■	3-4
"	diode-2	3	3	0	17	7	■	2	■	■	■
6098		1	6	18	8	7	■	5	3	7	6-8
6111	triode-1	5	3	13	10	7	■	8	7	■	3-6
"	triode-2	5	3	13	10	7	■	1	2	■	■
6112	triode-1	5	3	13	13	7	■	8	7	■	3-6
"	triode-2	5	3	13	13	7	■	1	2	■	■
6135		1	3	25	11	7	■	1	5	6	3-4
(6135—Must show short on 1-5)											
(6135—Plate short test—Depress 1-5 together)											

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.
							W	X	Y	Z	
26E6		1	2	13	7	12	■	4	3	5	2-7
26Z5	plate-1	2	9	0	4	10	■	6	■	■	4-5-9
"	plate-2	2	9	0	4	10	■	1	■	■	■
27		1	1	17	17	4	■	2	3	■	1-5
28D7	sect-1	2	1	33	5	12	■	3	5	7	1-8
"	sect-2	2	1	33	5	12	■	3	4	2	■
28Z5	plate-1	2	4	0	6	10	■	5	■	■	1-4-9
"	plate-2	2	4	0	6	10	■	3	■	■	■
30		1	1	17	23	3	■	2	3	■	1-4
31		1	1	31	8	3	■	2	3	■	1-4
32		1	1	20	35	3	■	3	2	11	1-4
32L7	amp.	1	2	16	8	13	■	4	3	5	2-7
"	rect.	2	2	0	2	13	■	6	■	■	■
33		1	1	32	11	3	■	4	2	3	1-5
RK-33	triode-1	1	1	25	9	7	■	3	11	■	1-7
"	triode-2	1	1	29	9	7	■	5	4	■	■
34		1	1	34	23	3	■	3	2	11	1-4
35/51		1	1	35	15	4	■	3	2	11	1-5
35Z6	plate-1	2	2	0	0	13	■	3	■	■	2-7
"	plate-2	2	2	0	0	13	■	5	■	■	■
36		1	1	30	20	7	■	3	2	11	1-5
37		1	1	27	11	7	■	3	2	3	1-5
38		1	1	38	12	7	■	3	2	11	1-5
39/44		1	1	35	17	7	■	3	2	11	1-5
40		1	1	14	41	6	■	4	2	3	1-4
41		1	1	31	11	7	■	3	2	4	1-6
42		1	1	32	11	7	■	3	2	4	1-6
43		1	1	31	7	12	■	3	2	4	1-6
45		1	1	35	6	4	■	6	2	3	1-4
45Z3		2	1	0	2	14	■	6	2	■	1-7
(45Z3—Must show short on 2-6)											
(45Z3—Plate short test—depress 2-6 together)											
(45Z3—Fil. cont. set control "E" at 12)											
45Z5		2	7	0	1	14	■	3	5	■	2-3-7
(45Z5—Fil. Cont.—Set Control "E" at 12)											
46		1	1	31	8	4	■	4	2	3	1-5
47		1	1	37	8	4	■	4	2	3	1-5
48		1	1	28	4	13	■	3	2	4	1-6
49		1	1	30	12	3	■	4	2	3	1-5
50		1	1	40	6	8	■	2	3	■	1-4
50Z7	plate-1	2	2	0	2	14	■	6	3	■	2-6-7
"	plate-2	2	2	0	2	14	■	6	5	■	■
(50Z7—Fil. Cont.—Set Control "E" at 12)											
53	triode-1	1	1	36	7	4	■	2	3	■	1-7
"	triode-2	1	1	36	7	4	■	6	5	■	■
55	triode	1	1	29	12	4	■	2	11	■	1-6
"	diode-1	3	1	0	26	4	■	3	■	■	■
"	diode-2	3	1	0	26	4	■	4	■	■	■
56		1	1	15	17	4	■	2	3	■	1-5
56A		1	1	15	16	7	■	3	2	3	1-5
57		1	1	28	20	4	■	3	2	11	1-6
57A		1	1	28	20	7	■	3	2	11	1-6
58		1	1	28	20	4	■	3	2	11	1-6
58A		1	1	28	20	7	■	3	2	11	1-6
59		1	1	31	7	4	■	3	2	4	1-7
RK-61		5	2	0	13	2	■	2	1	3	2-4
HY-69		6	1	40	6	7	■	2	11	3	1-5



Tube	Section	A	B	C	D	E	Lever				Fil. Cont.
							W	X	Y	Z	
70A7	amp.	1	2	20	6	15	■	4	3	5	2-6-7
"	rect.	2	2	0	0	15	■	6			
*(70A7—Rect. Test—See Instructions) (70A7—Fil. Cont.—Set Control "E" at 12)											
70L7	amp.	1	2	19	6	15	■	4	3	5	2-7
"	rect.	2	2	0	1	15	■	8			
(70L7—Fil. cont.—set control "E" at 12)											
71		1	1	37	5	6	■	2	3	■	1-4
75	triode	1	1	12	40	7	■	2	11	■	1-6
"	diode-1	3	1	0	27	7	■	3		■	
"	diode-2	3	1	0	27	7	■	4		■	
HY-75		7	2	36	7	7	■	12	11	■	2-7
(HY-75 Red grid cap connects to right hand side of tube, when plugged in)											
76		1	1	15	17	7	■	2	3	■	1-5
77		1	1	12	39	7	■	3	2	11	1-6
78		1	1	15	32	7	■	3	2	11	1-6
79	triode-1	1	1	33	9	7	■	2	3	■	1-6
"	triode-2	1	1	33	9	7	■	5	11	■	
80	plate-1	2	1	0	8	6	■	3		■	1-4
"	plate-2	2	1	0	8	6	■	3		■	
81		2	1	0	13	8	■	2		■	1-4
82	plate-1	2	1	0	2	4	■	2		■	1-4
"	plate-2	2	1	0	2	4	■	3		■	
83	plate-1	2	1	0	2	6	■	2		■	1-4
"	plate-2	2	1	0	2	6	■	3		■	
84	plate-1	2	1	0	4	7	■	2		■	1-5
"	plate-2	2	1	0	4	7	■	3		■	
G-84		2	1	0	11	4	■	2		■	1-4
85	triode	1	1	29	12	7	■	2	11	■	1-6
"	diode-1	3	1	0	26	7	■	3		■	
"	diode-2	3	1	0	26	7	■	4		■	
89		1	1	33	10	7	■	3	2	11	1-6
99		1	1	27	20	5	■	2	3	■	1-4
101F		1	1	29	11	6	■	2	3	■	1-4
(101F—Test with pin facing top of panel)											
117L7	amp.	1	2	25	7	17	■	5	3	4	2-7
117M7	rect.	2	2	0	2	17	■	6		■	
(117L7-M7—Fil. cont.—set control "E" at 12)											
117N7	amp.	1	2	12	7	17	■	5	3	4	2-7
"	rect.	2	2	0	0	17	■	*2	*7		
*(117N7—Rect. test—see Instructions) (117N7—Fil. cont.—set control "E" at 12)											
117P7	amp.	1	2	25	7	17	■	5	3	4	2-7
"	rect.	2	2	0	0	17	■	7		■	
(117P7—Fil. cont.—set control "E" at 12) (117P7—Rect. test—see Instructions)											
117Z3		2	3	0	1	17	■	1	5	■	3-4
(117Z3—Fil. cont.—set control "E" at 12) (117Z3—May show short on 1-5)											
117Z4		2	2	0	1	17	■	5		■	2-7
(117Z4—Fil. cont.—set control "E" at 12)											

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.
							W	X	Y	Z	
5663		1	3	0	5	7	■		7	1	3-4
5670	triode-1	1	1	27	10	7	■		6	7	1-9
"	triode-2	1	1	27	10	7	■		4	3	
5672		5	3	14	18	2	■	2	1	4	3-5
5676		5	2	8	21	2	■		1	3	2-4
5678		6	3	19	20	2	■	2	1	4	3-5
5679	diode-1	3	4	0	16	5	■		6		1-4-8
"	diode-2	3	4	0	18	5	■		3		
5686		1	4	23	14	7	■	6	9	7	2
(5686—Screen short test—Depress 6-9 together) (5686—Cathode short test—Depress 1-3-8 together) (5686—Must show short on 1-3-6-8-9)											
5687	triode-1	1	8	27	5	7	■		9	7	4-5-8
"	triode-2	1	8	27	5	7	■		1	2	
5691	triode-1	1	7	15	30	7	■		2	1	7-8
"	triode-2	1	7	15	30	7	■		5	4	
5692	triode-1	1	7	27	10	7	■		2	1	7-8
"	triode-2	1	7	27	10	7	■		5	4	
5693		1	2	27	18	7	■	6	8	4	2-7
5694	triode-1	1	2	28	12	7	■		3	4	2-7
"	triode-2	1	2	28	12	7	■		6	5	
5695		7	1	0	4	4	■		2		1-4
5696		1	3	0	4	6	■		6	1	3-4
(5696—Must show short on 5-7) (5696—Screen short test—Depress 5-7 together)											
5702		2	3	15	22	7	■	2	1	7	3-4
5703		1	3	22	8	7	■		1	5	3-4
5718		1	3	16	9	7	■		8	1	3-6
5719		5	3	12	15	7	■		8	1	3-6
5725		1	3	11	32	7	■	6	5	1	3-4
5726	diode-1	3	3	0	17	7	■		2		3-4
"	diode-2	3	3	0	17	7	■		2		
5727		7	3	0	3	7	■		6	1	3-4
(5727—Must show short on 5-7) (5727—Screen short test—Depress 5-7 together)											
5744		1	2	7	28	7	■		1	4	2-3
5749		1	3	28	15	7	■		6	5	3-4
5750	amp.	4	3	7	27	7	■		6	5	3-4
"	osc.	1	3	21	9	7	■		6	1	
5751	triode-1	4	9	15	10	7	■		6	7	4-5-9
"	triode-2	4	9	15	10	7	■		1	2	
5755	triode-1	3	9	22	20	7	■		8	6	4-5-9
"	triode-2	3	9	22	20	7	■		1	3	
5763		1	4	27	10	7	■	8	6	1	9
(5763—Must show short on 8-9) (5763—Grid short test—Depress 8-9 together)											
5794		5	2	5	27	7	■		2	1	7
5812		1	7	20	10	5	■		6	5	1
5814	triode-1	1	9	27	10	7	■		1	2	3-4-7
"	triode-2	1	9	27	10	7	■		6	7	4-5-9
5823		7	1	0	0	18	■		1		
(5823—Must show short on 3-7)											
5824		1	2	14	5	12	■		4	3	5
CK-5829	diode-1	3	3	0	17	7	■		6		2-7
"	diode-2	3	3	0	17	7	■		1		3-5
5840		1	3	10	25	7	■		7	5	1
(5840—Must show short on 2-4-8) (5840—Cathode short test—Depress 2-4-8 together)											

Tube	Section	A	B	C	D	E	W	X	Y	Z	Fil. Cont.
1634	triode-1	1	7	24	27	10	■	2	3	■	7-8
"	triode-2	1	7	24	27	10	■	5	4	■	2-7
1635	triode-1	1	2	30	16	7	■	6	5	■	2-7
"	triode-2	1	2	30	16	7	■	3	4	■	2-7
1639	triode-1	1	2	30	10	7	■	3	11	■	2-7
"	diode-1	3	2	0	19	7	■	5	■	■	■
"	diode-2	3	2	0	19	7	■	4	■	■	■
1644	pentode-1	1	6	30	13	10	■	5	4	3	6-7
"	pentode-2	1	6	30	13	10	■	5	8	1	■
1650	triode-1	1	1	25	13	7	■	2	3	■	1-4
1655	triode-1	1	7	19	27	7	■	5	4	■	7-8
"	triode-2	1	7	19	27	7	■	2	3	■	2-7
1557	triode-1	7	2	0	3	7	■	2	3	5	2-7
(1657—Must show short on 1-4)											
1659	triode-1	1	1	12	40	4	■	2	11	■	1-6
"	diode-1	3	1	0	27	4	■	3	■	■	■
"	diode-2	3	1	0	27	4	■	4	■	■	■
1562	triode-1	1	5	26	12	2	■	6	3	2	4
(1662—Must show short on 2-6)											
(1662—Plate short test—Depress 2-6 together)											
1665	triode-1	7	2	0	3	7	■	3	5	■	2-7
1851	triode-1	1	2	6	26	7	■	4	3	11	2-7
1852	triode-1	1	2	6	26	7	■	6	8	4	2-7
1853	triode-1	1	2	12	22	7	■	6	8	4	2-7
2050	triode-1	7	2	0	3	7	■	3	5	■	2-7
2051	triode-1	7	2	0	3	7	■	3	5	■	2-7
5516	triode-1	6	1	38	6	4	■	4-6	3	11	5
(Caution—Levers 4-6 MUST be thrown to position "W" BEFORE inserting tube, and MUST remain in position "W" Throughout ALL TESTS, INCLUDING SHORT TESTS)											
CK-5517	triode-1	6	1	38	6	4	■	4-6	3	11	5
(CK-5517—Must show short on 1-2-6-7)											
(CK-5517—May show short on 3-5)											
(CK-5517—Cathode short test—Depress 1-2-6-7 together)											
5590	triode-1	1	3	23	13	7	■	6	5	1	3-4
(5590—Must show short on 2-7)											
(5590—Cathode short test—Depress 2-7 together)											
5603	triode-1	1	2	20	7	7	■	6	8	4	2-7
CK-5608	triode-1	1	2	20	7	7	■	6	8	4	2-7
"	triode-2	1	7	28	11	4	■	6	5	■	1-7
(CK-5608—May show short on 4)											
5610	triode-1	1	3	28	7	7	■	1	5	6	3-4
(5610—Must show short on 1-5)											
(5610—Plate short test—Depress 1-5 together)											
5618	triode-1	1	5	17	8	4	■	3	2	6	1-5-7
5636	triode-1	5	3	10	30	7	■	7	5	1	3-6
(5636—Must show short on 2-8)											
(5636—Cathode short test—depress 2-8 together)											
5642	triode-1	3	2	0	33	2	■	11	■	■	1-2
(5642—The 2 bottom leads of tube connect to octal socket—Pins 1 & 2. Top lead connect to blk. grid cap)											
5654	triode-1	1	2	22	16	7	■	6	5	1	3-4
(5654—Must show short on 2-7)											
(5654—Cathode short test—Depress 2-7 together)											

Tube	Section	A	B	C	D	E	W	X	Y	Z	Fil. Cont.
117Z6	plate-1	2	2	0	1	17	■	3	■	■	2-7
"	plate-2	2	2	0	1	17	■	5	■	■	2-7
(117Z6—Fil. cont.—set control "E" at 12)											
X-155	triode-1	1	4	14	13	7	■	1	2	■	4-5
"	triode-2	1	4	14	13	7	■	6	7	■	1-4
182-482A	triode-1	1	1	37	5	6	■	2	3	■	1-4
182B-482B	triode-1	1	1	33	6	6	■	2	3	■	1-4
183-483	triode-1	1	1	35	5	6	■	2	3	■	1-4
205D	triode-1	1	1	32	10	6	■	2	3	■	1-4
(205D—Test with bayonet pin towards upper left corner)											
247A	triode-1	1	1	17	25	3	■	2	3	■	1-5
262B	triode-1	1	1	21	20	9	■	2	11	■	1-4
264C	triode-1	1	1	26	18	2	■	2	3	■	1-4
271A	triode-1	1	1	32	7	6	■	2	3	■	1-5
272A	triode-1	1	1	30	11	9	■	2	3	■	1-5
"	plate-1	2	1	0	7	6	■	3	■	■	1-4
"	plate-2	2	1	0	7	6	■	3	■	■	1-4
300B	triode-1	1	1	40	4	6	■	2	3	■	1-4
307A	triode-1	1	1	17	15	6	■	2	11	3	1-5
310A	triode-1	1	1	30	15	9	■	3	2	11	1-6
313C	triode-1	1	5	0	13	8	■	2	■	■	■
(313C—May show short on 1-4)											
326A	triode-1	1	1	30	15	6	■	3	2	11	1-5
329A	triode-1	1	1	16	11	8	■	3	2	11	1-5
331B	triode-1	2	1	23	10	9	■	3	2	11	1-5
336A	triode-1	1	1	27	9	9	■	3	2	4	1-6
345A	plate-1	2	1	0	6	7	■	2	■	■	1-5
"	plate-2	2	1	0	6	7	■	3	■	■	1-5
347A	triode-1	1	2	16	23	7	■	4	11	■	2-7
348A	triode-1	1	2	27	17	7	■	4	3	11	2-7
349A	triode-1	1	2	25	10	7	■	4	3	5	2-7
360A	triode-1	7	1	18	7	7	■	2	11	3	1-5
360B	triode-1	7	1	18	7	7	■	4	3	5	2-7
361A	plate-1	1	2	0	5	7	■	3	■	■	2-7
"	plate-2	1	2	0	5	7	■	3	■	■	2-7
352A	triode-1	1	1	17	24	9	■	2	11	■	1-6
"	diode-1	3	1	0	23	9	■	3	■	■	■
"	diode-2	3	1	0	23	9	■	4	■	■	■
TS 383	triode-1	1	4	0	15	7	■	1	■	■	3-4
398A	triode-1	1	2	20	7	7	■	6	8	4	2-7
401A	triode-1	1	3	23	13	7	■	6	5	1	3-4
(401A—Must show short on 2-7)											
(401A—Cathode short test—Depress 2-7 together)											
407A	triode-1	1	5	8	15	11	■	4	3	■	1-5-9
"	triode-2	1	5	8	15	11	■	6	7	■	1-5
408A	triode-1	1	3	10	24	11	■	6	5	1	3-4
(408A—Must show short on 2-7)											
(408A—Cathode short test—Depress 2-7 together)											
412A	plate-1	5	4	0	7	7	■	9	■	■	4-5
"	plate-2	5	4	0	7	7	■	1	■	■	4-5
417A	triode-1	1	3	14	7	7	■	5-7-8	1	4	3-9
(417A—Must short short on 4-5-7-8)											
(417A—Grid short test—Depress 4-5-7-8 together)											
484-485	triode-1	1	1	17	17	5	■	2	3	■	1-5

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.
							W	X	Y	Z	
CK-501-AX		5	3	8	37	2		2	1	4	3-5
502A		7	2	0	3	7			3	5	2-7
CK-502-AX		5	3	5	36	2		2	1	4	3-5
CK-503-AX		5	3	5	36	2		2	1	4	3-5
CK-505-AX		5	3	10	43	1		2	1	4	3-5
CK-506-AX		5	3	12	17	2		2	1	4	3-5
CK-507-AX		5	3	10	25	2		2	1	4	3-5
CK-511-AX		5	3	13	48	2		2	1	4	3-5
CK-512-AX		3	3	7	50	1		2	1	4	3-5
CK-520-AX		5	3	10	48	1		2	1	4	3-5
CK-521-AX		5	3	19	13	2		2	1	4	3-5
CK-522-AX		5	3	7	29	2		2	1	4	3-5
CK-527-AX		3	3	17	34	2		2	1	4	3-5
CK-532-DX		3	3	6	33	2		2	1	4	3-5
CK-536-AX		3	3	6	33	2		2	1	4	3-5
CK-542-DX		3	3	8	29	2		2	1	4	3-5
CK-553-AXA		5	3	5	29	2		2	1	4	3-5
CK-556-AX		5	2	20	11	2			1	3	2-4
CK-568-AX		5	2	10	24	2			1	3	2-4
CK-589-AX		5	3	19	20	2		2	1	4	3-5
CK-573-AX		5	2	10	14	2			1	3	2-4
585-588		1	1	37	6	8			2	3	1-4
CX-605-CX		2	3	15	22	7		2	1	7	3-4
CK-606-BX		3	2	0	16	7			1	5	2-3
CK-608-CX		1	3	22	8	7				5	3-4
CK-619-CX		5	2	11	15	7			1	4	2-3
713A		1	2	5	30	7		6	8	4	2-7
(713A—Must show short on 3-5)											
(713A—Cathode short test—Depress 3-5 together)											
717A		1	2	5	30	7		6	8	4	2-7
(717A—Must show short on 3-5)											
(717A—Cathode short test—Depress 3-5 together)											
801		1	1	30	10	8			2	3	1-4
802		6	1	34	8	7		3	11	4	1-7
807		1	1	27	11	7		2	11	3	1-5
809		1	1	15	30	7			11	3	1-4
811A		1	1	36	7	7			11	3	1-4
812		6	1	25	10	7			11	3	1-4
815	sect-1	7	5	15	10	7		4	11	7	1-5-8
"	sect-2	7	5	15	10	7		4	12	2	
(816—Red grid cap connects to right hand side of tube, when plugged in)											
(816—Must show short on 3-5)											
816		2	1	0	1	4			11		1-4
837		1	1	28	10	10		3	11	4	1-7
841		6	1	44	6	8			2	3	1-4
842		6	1	37	4	6			2	3	1-4
843		1	1	30	10	4			2	3	1-5
864		1	1	27	18	2			2	3	1-4
866A		1	1	0	5	4			11		1-4
866JR		7	1	0	4	4			2		1-4
884		1	2	0	4	7			3		2-7
885		1	1	0	4	4			3		1-5
932		4	1	20	10	3		3	2	11	1-4
950		1	1	37	11	3		4	2	3	1-5
954		1	1	13	34	7		2	11	6	1-4
955		1	1	25	13	7			2	3	1-4
956		1	1	31	15	7		2	11	6	1-4
957		1	1	24	22	2		5	2	3	1-4-5

Tube	Section	A	B	C	D	E	Lever				Fil. Cont.	
							W	X	Y	Z		
958		1	1	27	10	2	■	5		2	3	1-4-5
959		1	1	23	35	2	■	5	2	11	6	1-4-5
FM-1000	amp.	4	1	5	24	7	■		5	4	2	1-8
"	osc.	1	1	15	8	7	■			5	2	
1005	plate-1	7	6	0	4	7	■			3		6-8
"	plate-2	7	6	0	4	7	■			5		
CK-1013		7	6	0	9	1	■			11		
(CK-1013—Must show short on 1-2-6-7)												
(CK-1013—May show short on 3-5)												
(CK-1013—Cathode short test—Depress 1-2-6-7 together)												
1201		1	2	36	7	7	■	3-5		7	1	2-8
(1201—Plate short test—Depress 3-7 TOGETHER)												
(1201—Grid short test—Depress 1-5 TOGETHER)												
(1201—Cathode short test—Depress 4-6 TOGETHER)												
(1201—Must show short on 1-3-4-5-6-7 INDIVIDUALLY)												
1203		3	1	0	21	7	■			4		1-8
1206	sect-1	1	1	27	14	7	■		3	7	5	1-8
"	sect-2	1	1	27	14	7	■			3	2	4
1221		1	1	28	20	7	■		3	2	11	1-6
1222-A		1	1	17	10	7	■		3	2	4	1-6
1223		1	2	28	20	7	■		4	3	11	2-7
1229		1	1	15	35	3	■		3	2	11	1-4
1231		1	1	10	25	7	■		3	2	6	1-8
1232		1	1	11	23	7	■		3	2	6	1-8
HY-1269		6	4	36	5	7	■		2	11	3	1-4-5
1273		1	1	21	25	7	■		3	2	6	1-6
1276		1	1	35	4	6	■			2	3	1-5
1280		1	1	21	25	10	■		3	2	6	1-8
1282		1	1	12	26	7	■		3	2	6	1-8
(1282—Must show short on 4-7)												
(1282—Cathode short test—Depress 4-7 together)												
1284		1	1	20	22	10	■		3	2	6	1-8
1291	triode-1	1	4	17	18	2	■			2	3	1-4-8
"	triode-2	1	4	17	18	2	■			7	6	
1293		1	1	20	18	2	■			2	6	1-6
1299		1	7	18	15	2	■		3	2	6	1-7-8
1602		1	1	30	10	8	■			2	3	1-4
1603		1	1	28	20	7	■		3	2	11	1-6
1609		1	1	25	29	2	■		4	2	3	1-5
1610		1	1	37	8	4	■		4	2	3	1-5
1611		1	2	32	10	7	■		4	3	5	2-7
1612	amp.	4	2	10	29	7	■		4	3	5	2-7
"	osc.	3	2	12	26	7	■			4	11	
1613		1	2	32	10	7	■		4	3	5	2-7
1614		1	2	24	9	7	■		4	3	5	2-7
1619		6	2	36	5	4	■		4	3	5	2-7
1620		1	2	15	35	7	■		4	3	11	2-7
1621		1	2	32	10	7	■		4	3	5	2-7
1622		1	2	24	9	7	■		4	3	5	2-7
1624		6	1	35	6	4	■		2	11	3	1-5
1625		1	1	28	8	10	■		3	11	4	1-7
1626		1	2	30	6	10	■			3	5	2-7
1629	triode	1	2	25	24	10	■			3	5	2-7
"	eye	1	2	0	0	10	■			3	4	
(1629—See instructions for Eye Test)												
1631		1	2	24	9	10	■		4	3	5	2-7
1632		1	2	10	6	10	■		4	3	5	2-7
1633	triode-1	1	7	15	16	12	■			5	4	7-8
"	triode-2	1	7	15	16	12	■			2	1	